First Alert®

RECORDING
wired
CAMERA SYSTEM

H.264 advanced video compression

digital dvr recorder

mobile phone/ web ready

500 GB or 1 TB DVR

night vision

indoor/outdoor 420 TVL cameras

USER'S MANUAL

Model

DC8405-420 8 Channels/4 Cameras
DC8810-420 8 Channels/8 Cameras

First Alert®

WELCOME

Thank you for choosing First Alert for your security needs!

For more than half a century, First Alert has made the home-safety and security products that make your job easier. Our products are built to the highest standard which has earned us a leadership role in the home-safety and security product categories. We are committed to serving our customers, from the professionals who install our products, to the families and businesses who count on them. First Alert has been helping families and businesses stay safe for over 50 years. By having a First Alert Security System, you're taking the first step in protecting your home or business from damage or theft. We're watching, even when you're not.

This manual is written for the DVRs included in the DC8405-420 and DVR8810-420 security kits. It was accurate at the time it was completed. However, because of our ongoing effort to constantly improve our products, additional features and functions may have been added since that time and on-screen displays may change. We encourage you to visit our website at www.brkelectronics.com to check for the latest manuals (English and Spanish), firmware updates, downloads, other security camera products and announcements. You'll find this product line under Products >> Security Cameras >> Wired Cameras.

©2011 BRK Brands, Inc.
a Jarden Corporation company (NYSE:JAH)
www.brkelectronics.com
All rights reserved. Distributed by BRK Brands, Inc. 3901 Liberty Street Road, Aurora, IL 60504-8122. Due to continuing product development, the product inside the packaging may look slightly different than the one on the package.
BRK Brands, Inc. is a subsidiary of Jarden Corporation (NYSE: JAH). To obtain warranty service, contact the Consumer Affairs Division at 1-800-323-9005, Monday through Friday, 7:30 a.m. - 5 p.m., Central Standard Time.
Made in China

MAIN DESCRIPTION

Eight channel H.264 digital video recorder with Internet remote surveillance, motion detection, PTZ and alarm control suitable for applications such as high-end residential - new or remodel, light commercial, small business/retail, small warehouse or small grocery.

PRODUCT FEATURES

- H.264 Compression & Virus free Linux O/S
- Record, playback, mobile phone live view, backup, control, & remote access
- 500 GB or 1 TB SATA hard drive installed
- Supports smart phone live view & Email alarm
- Customizable Email alerts
- Supports 2-channel HD1 or 2-channel D1 and 6-channel CIF Real-time simultaneous recording
- Supports 8-channel simultaneous playback
- User-friendly interface: DVR capable of providing 16 bit true color, semi-transparent GUI with notes for selected menu items
- Advanced motion detection activated recording
- 24/7 Scheduled Recording
- Supports D1, HD1, CIF and QCIF for recording quality
- Network monitoring through internet access
- Supports USB or external DVD backup
- Hi-speed backup/upgrade/record via USB2.0
- PTZ camera control
- CMOS Color 420TVL cameras with 30 IR LED's for up to 50' night vision and IP54 weather rating

INTRODUCTION
TABLE OF CONTENTS

Section	Description	Page #
1	**Introduction**	2-3
2	**Safety**	6
3	**Product Overview**	7
	What is in the Box	7
	DVR Controls	
	Front Panel	8
	Back Panel	9
	Remote Control	10
	Mouse Controls	11
	Camera Power Connections	12
	Connecting Devices	12
4	**Initial Setup - System Operation**	13
	System Start Up	13
	Power On/Off	13
	Main Menu Access (Quick Access Menu)	14
	Password Setup and User Permissions	15
	Camera Display Setup	16
	Language, Date and Time	17
	Display, Video/Audio	17
	Language, Date/Time and Daylight Savings Time (DST)	17
5	**Basic Operation**	18
	Recording	18
	Configure Recording Options	18
	Recording Schedule (Timer Recording)	18
	Recording Schedule (TIMER RECORD) Example	19
	Privacy Mask Field	19
	Motion Detect Setup	19
	Playback	20
	Playback and Record Search	20
	On-Screen Playback Controls	20
	File List	21
	Backup	21
	HDD Management	21-22

Section	Description	Page #
6	**Advanced Operation**	**22**
	Alarm	22-23
	Alarm Setup	22-23
	Email Setup	23
	System Info and System Update	24
	System Maintain	24
	Upgrade Firmware	24
	PTZ Setup and Control	25-26
	Step 1: Connect your PTZ Camera to this DVR	25
	Step 2: Configure PTZ Communication Settings	25
	Step 3: Configure the Operation and Control of your PTZ Camera(s)	25
	Step 4: Configure the CRUISE SETTING of your PTZ Camera	26
7	**Remote Access**	**27**
	Network Setup for Remote Access	27
	DHCP (Dynamic Host Configuration Protocol)	27
	Static IP	27
	UPnP (Universal Plug and Play)	28
	PPPoE (Point-to-Point Protocol Over Ethernet)	28
	DDNS (Dynamic Domain Name Service	29-30
	Port Forwarding	30-32
	Remote Surveillance	33
	Remote Surveillance using Internet Explorer 8	33-34
	Using Remote Surveillance	34
	Remote Surveillance Main Screen	35
	Live Viewing Tab	36
	Playback Tab	37-38
	Setup Tab	39
	Setting, Maintenance and Host Info Tabs	40
8	**Mobile Phone**	**41**
	Mobile Setup	41
	Windows Mobile Pro (6.0 or later) OS Phones	41-42
	Symbian (S60 3rd or later) OS Phones	43-44
	Android 1.5 Mobile OS Phones	45-46
	Apple iPhone on 3G Networks OS Phones	47
	Blackberry OS 5.0 Phones (Curve 8900, Bold 9700, Tour 9630)	48-49
9	**Appendix**	**50**
	Hard Drive Removal and Installation	50
	Specifications	51
	FAQ's (Frequently Asked Questions)	52-53
	Troubleshooting	54
	Warranty	55

SAFETY
CAUTION STATEMENTS

SAFETY PRECAUTIONS

- Do not drop, puncture, or disassemble the cameras or DVR.
- Do not tug on the power adapter. Use the plug to remove it from the wall.
- Do not expose the cameras or DVR to high temperatures.
- For your own safety, avoid using the DVR when there is a storm or lightning in your area.
- Use the cameras and DVR with care. Avoid pressing hard on the cameras or DVR body.
- Do not use power cable if it is damaged or crushed.

FCC COMPLIANCE

FCC Compliance Class B Digital Device
This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications.

However, there is no guarantee that the interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that of the receiver.
- Consult the dealer or an experienced radio or TV technician for help.

Notice: Only peripherals complying with FCC class B limits may be attached to this equipment. Operation with non-compliant peripherals or peripherals not recommended by First Alert / BRK Brands, Inc. is likely to result in interference to radio and TV reception. Changes or modifications to the product, not expressly approved by First Alert / BRK Brands, Inc., could void the user's authority to operate the equipment.

Important: The information shown in the FCC Declaration of Conformity paragraph below is a requirement of the FCC and is intended to supply you with information regarding the FCC approval of this device. The phone number listed below is for FCC related questions only and not intended for questions regarding the connection or operation for this device.

FCC Declaration of Conformity for devices with the FCC logo. Responsible Party: First Alert / BRK Brands, Inc., 3901 Liberty Street Rd., Aurora, IL. 60504-8122. Telephone: (630) 851 - 7330. Product / Model: DC8405-420 and DC8810-420.

We, First Alert / BRK Brands, Inc. declare under our sole responsibility that the device to which this declaration relates: Complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

FCC Certification (if applicable)
This device contains a radio transmitter. Accordingly, it has been certified as compliant with 47 CFR Part 15 of the FCC Rules for intentional radiators. Products that contain a radio transmitter are labeled with an FCC ID.

FIRE AND ELECTRIC SHOCK HAZARD STATEMENT

CAUTION

RISK OF ELECTRIC SHOCK

CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK. UNPLUG ALL POWER SOURCES, INCLUDING CAMERAS FROM THE DVR BEFORE REMOVING COVER. FAILURE TO DO SO CAN RESULT IN DAMAGE TO THE DVR OR ITS COMPONENTS AS WELL AS INJURY OR DEATH.

The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of un-insulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock.

The exclamation point within an equilateral triangle, is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

WARNING: TO PREVENT FIRE OR SHOCK HAZARD, DO NOT EXPOSE THIS DVR UNIT TO RAIN OR MOISTURE

CAUTION: TO PREVENT ELECTRIC SHOCK, MATCH WIDE BLADE OF THE PLUG TO THE WIDE SLOT AND FULLY INSERT

Caution!
When working with electrostatic sensitive devices such as hard disk or DVR unit, make sure you use a static-free workstation. Any electrostatic energy coming in contact with the hard disk or DVR can damage it permanently.

DISPOSAL

These symbols indicate that it is prohibited to dispose of these batteries in the household waste. Take spent batteries that can no longer be charged to the designated collection points in your community.

WHAT'S IN THE BOX

H.264 8 channel Digital DVR
with 500 GB or 1 TB Hard Drive

DC8405-420: 500 GB
DC8810-420: 1 TB

CM420
TVL Camera

3 Window
Warning Decalls

Quick Install Guide

Mobile
Application CD

Remote Control

RJ45 Ethernet Cable

USB 2.0 Mouse

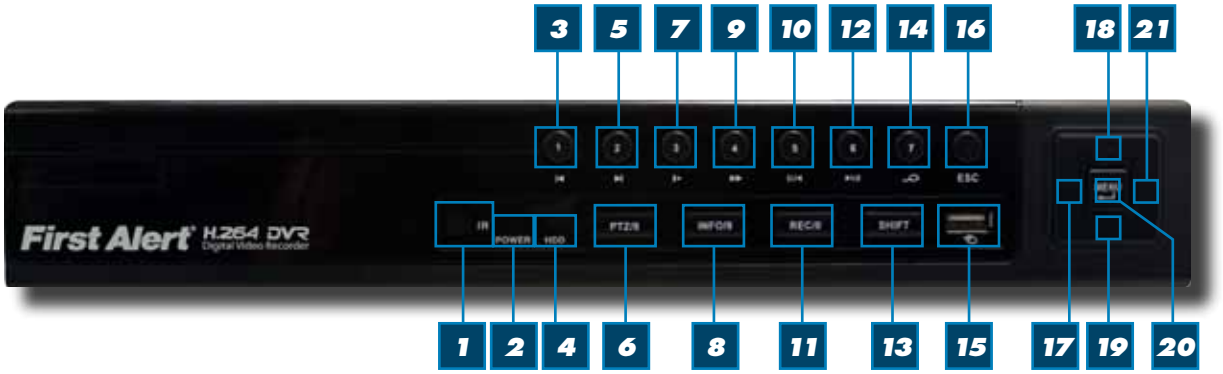
Power Supply for
DVR and Cameras

75' BNC Video & DC Power Cable
DC8405-420: 4 cables
DC8805-420: 8 cables

9-way Power splitter -
8 cameras, 1 DVR

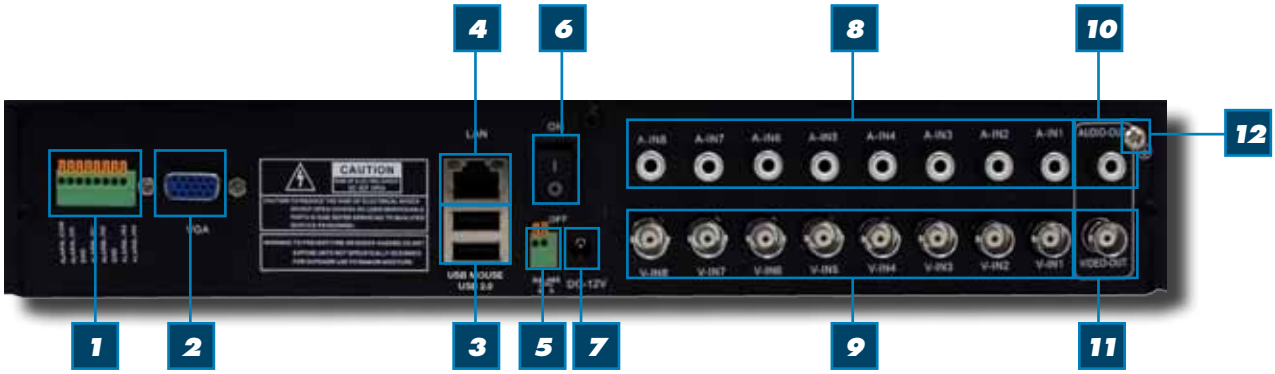
PRODUCT OVERVIEW
DVR CONTROLS

FRONT PANEL



ITEM	FUNCTION	CONTROL	DESCRIPTION
1	(1) IR remote receiver		Direct remote towards this position when using DVR
2	Power indicator light		A red light indicates power is on
3	Previous file/1	⏮	In Live Mode shows camera One; In search and Playback mode: selects previous file in list;Use to select previous entry in a list
4	HDD indicator light		Green light indicates hard drive is available.
5	Next file /2	⏭	In Live Mode shows camera One; In search and Playback mode: selects next file in list;Use to select next entry in a list
6	PTZ /8	⏯	In Live Mode shows camera Eight;Press shift the PTZ will bring PTZ menu up
7	Slow play /3		In Live Mode shows camera One; Plays video at slow speed
8	HDD Info/9		Brings up hard drive information screen
9	Fast play/4	⏩	Plays video at fast speed
10	Backward pause/5	⏸◀	Play or Pause video in backward mode
11	Record /0		Brings the Record Mode menu up
12	Play Pause /6	▶⏸	Play or Pause video in forward mode
13	Shift		Press Shift and Release to select alternate functions
14	Search video/7		Brings up the Search/Playback screen
15	USB		Connection for mouse
16	ESC		Brings system previous selection
17	Left	◀	In menu mode: moves to highlight next section
18	Up	▲	In live mode: rotates between single , quad, eight or nine camera screen
19	Down	▼	In live mode: rotates between single , quad, eight or nine camera screen
20	Menu/Enter	MENU	Press to make selection
21	Right	▶	In menu mode: moves to highlight previous section

BACK PANEL



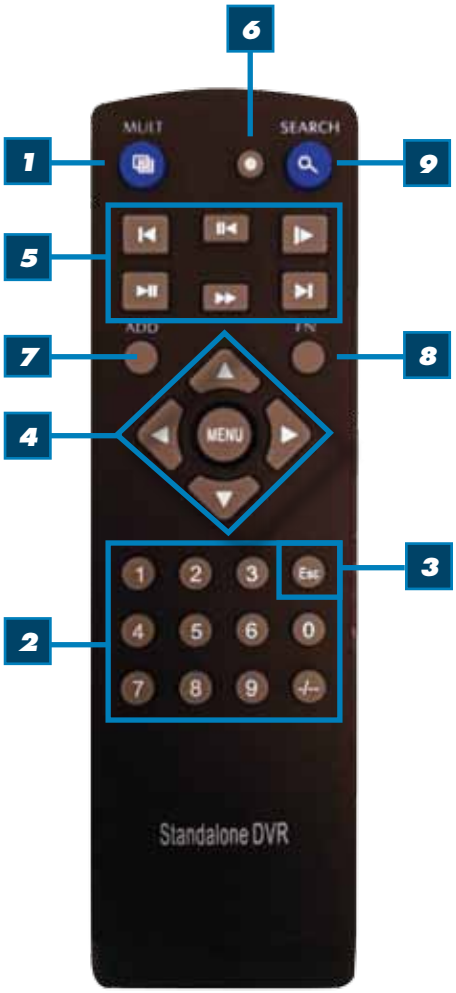
Item	Function	Description
1	Alarm	4 alarm inputs
2	VGA Output	For connecting to VGA monitor
3	USB/Mouse	Use Upper USB port for mouse connection; Use Lower USB port for USB flashdrive or backup
4	Lan	For connecting RJ45 ethernet cable to PC or router
5	RS485	For connecting PTZ cameras
6	Power Switch	Power On/Off
7	Power Supply	For connection to power cord +12V DC
8	Audio Input	For connecting audio signal from audio capable cameras or self powered microphones (RCA jacks)
9	Video Input	For connecting video signal from cameras (BNC)
10	Audio Output	For connecting audio signal to amplified speakers (RCA jacks)
11	BNC Output	For connecting to a BNC monitor
12	Ground	Ground Connection

REMOTE CONTROL

Remote Control Operation

The remote control is the secondary input device for navigating the system's interface. In device operation, the MENU key has the same function as "left click" of the mouse.

ITEM	FUNCTION	DESCRIPTION
1	Multi	Rotates between single, quad, eight or nine camera view
2	Numeric Buttons	Press to Select channel to view; use to input numerical information in appropriate screens
3	Esc	Move back to previous menu screen
4	**NAVIGATION BUTTONS**	
	Menu	Brings up menu options: In menus, press to confirm selections; in PTZ mode, press to change the navigation buttons to control the connected PTZ camera (not included)
	▲	Press to move cursor up; in PTZ mode, press to pan camera up
	▼	Press to move cursor down; in PTZ mode, press to pan camera down
	◀	Press to move cursor left; in PTZ mode, press to pan camera left
	▶	Press to move cursor right; in PTZ mode, press to pan camera right
5	**PLAYBACK CONTROLS**	
	⏮	Move to previous record for viewing
	⏭	Move to next record for viewing
	⏩	Press to fast forward 2X,4X,8X, 16X,Normal
	⏸/◀	Press once to Pause, then reverse by frame, reverse normal speed, reverse 2X,4X,8X, back to pause
	⏹/▶	Press once pause, twice to move forward
	⏮	Playback frame by frame in forward and reverse
6	Record Mode	Press to bring RECORD Menu on screen
7	ADD	Use when controlling multiple DVR systems
8	FN	Use when imputting information, Press FN to step through upper case, lower case and numbers
9	**SEARCH**	Use to Search recorded video files



Directions for Installing/ Changing Batteries

1. Open battery compartment on back of Remote and insert (2) Alkaline AAA batteries (provided.)
2. Ensure all batteries are installed correctly with regard to polarity (+ and -.)
3. Remove batteries from Remote if it is not to be used for an extended period of time.
4. Remove used batteries promptly and replace all batteries of a set at the same time.
5. Always purchase the correct size and grade of battery most suitable for intended use.

Mouse Controls

Mouse Operation with this DVR

The mouse is the primary input device for navigating system menus.
NOTE: Unless otherwise noted, all system functions described in this manual are achieved through mouse input.

To use a mouse with the system:
Connect a USB mouse to the USB MOUSE port on front panel of the system.
NOTE: Only the USB 2.0 port on the back panel (bottom USB port) is designed for data backup to a USB flash drive. Do not connect a USB flash drive to the USB MOUSE port.

Use the mouse buttons to perform the following:

DVR Front Face
Connect Mouse & USB Drive

1 Left-Button:

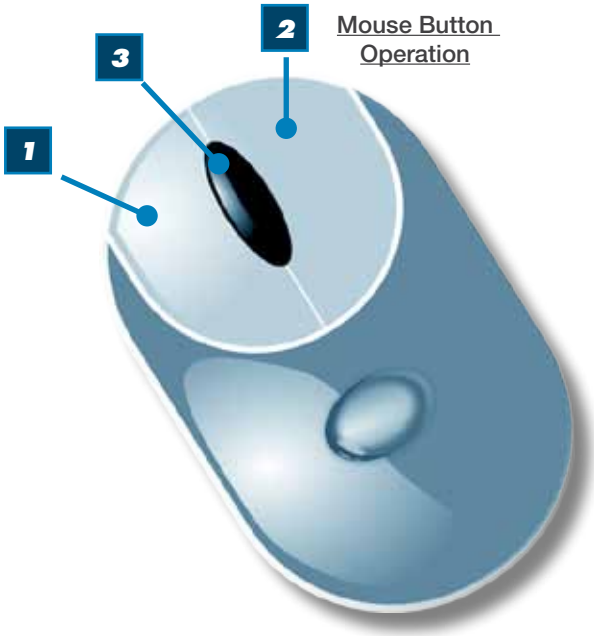
- Click to select a menu option
- During live viewing in split-screen double-click on a channel to view the selected channel in full-screen
- Double-click the channel again to return to split-screen view
- Selecting letter or number on the virtual keypad

2 Right-Button:

- Click to open the Quick Access Menu
- Exits any window
- Exits any menu or re-opens previous menu

3 Scroll-Wheel:

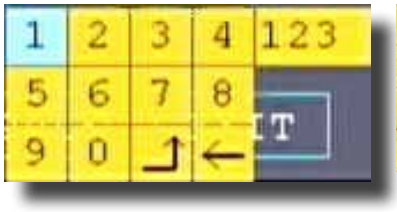
- Use scroll wheel to step through full screen views of the cameras



Virtual Keypad

Virtual Keypad

To enter text or numerical data, the system uses a virtual keypad. In fields where letters or numbers can be entered, you can switch between various formats – numbers, upper case (ABC) and lower case (abc). Note you can access all numbers when in the “Letters” virtual keypads. See below.



Numbers

Letters-Uppercase

Letters-Lowercase

PRODUCT OVERVIEW
CAMERA AND POWER CONNECTIONS

INSTALLING CAMERAS

Mounting Cameras and Running Cable

Select the position for the camera and secure the camera stand. Screw the camera onto the stand. Adjust camera to the proper view angle. Make sure the lens is upright relative to the subject. Tighten the thumb bolt. First Alert cameras can be either ceiling or wall mounted by simply reversing the camera stand mounting. See “Camera Orientation” Info box. Holes are provided on both the top and bottom of the camera housing to accommodate most mounting requirements. Run cable from camera to DVR location. See Information box below on “Longer Cable Runs”.

Camera - Wall Mounted

Camera - Ceiling Mounted

Camera Orientation

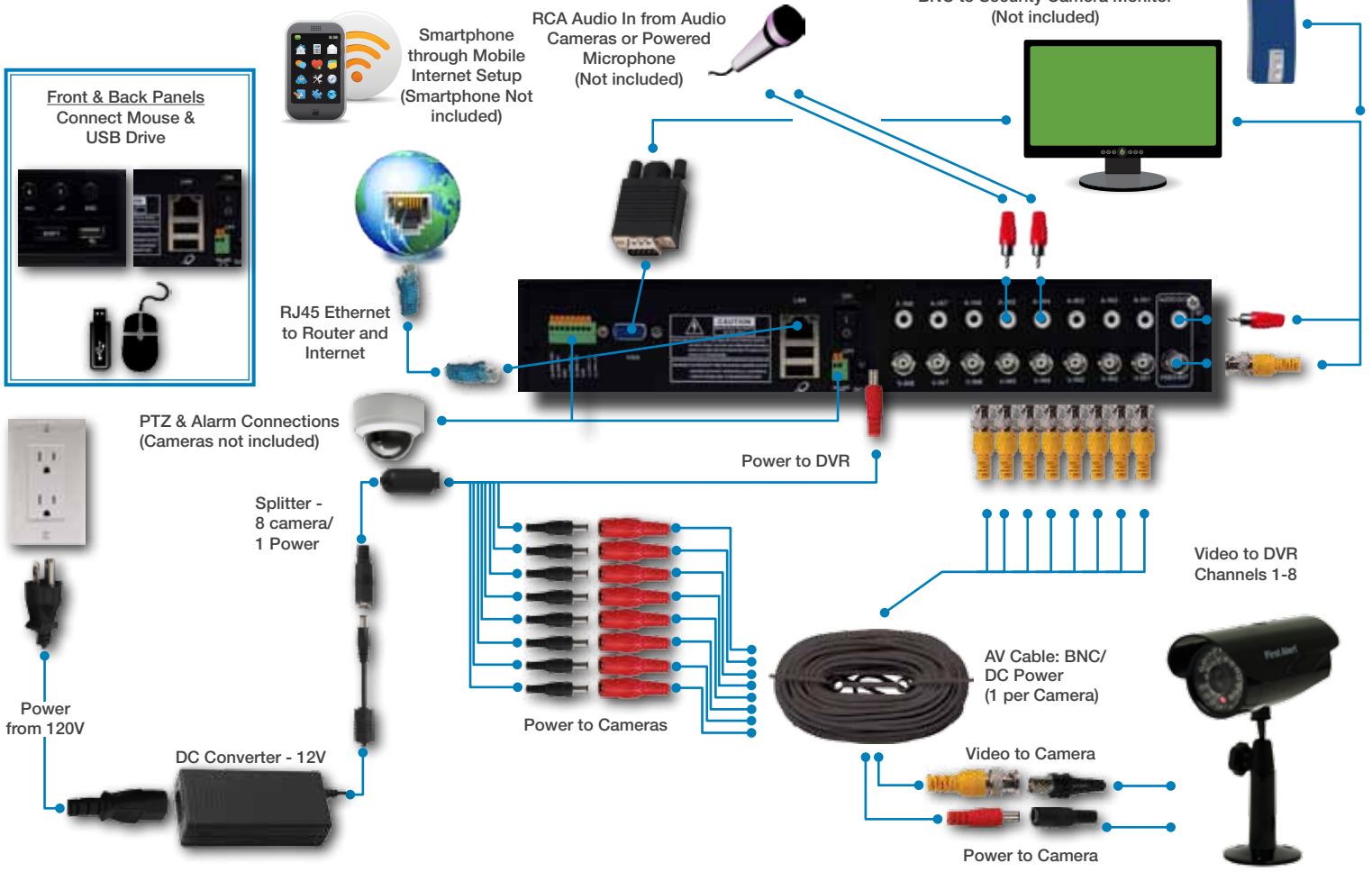
It’s important the camera is mounted correctly to ensure the image is not upside down as the camera lens can only be positioned one way.

Longer Cable Runs

Longer cable runs may require an upgrade to RG59 Coax cable. First Alert kits ship with economical AV cable that is designed to work well up to the length of cable provided, usually around 60 feet. If longer distances between camera and DVR are required, you will need to upgrade to RG59 Coax cable. We provide several lengths up to 300 feet. In addition, if you need to run cable for in-wall installations, then you may require fire rated cable, FT-4/CMR UL approved for in-wall installations.

STEP 2... CONNECTING DEVICES

Follow this diagram to make device connections. Note, some devices are not included with this kit. See “What’s in the Box” for included devices.


RCA Audio Out to Powered Speakers (Not included)
VGA to PC Monitor or TV
BNC to Security Camera Monitor
(Not included)
Smartphone through Mobile Internet Setup (Smartphone Not included)
RCA Audio In from Audio Cameras or Powered Microphone (Not included)
Front & Back Panels
Connect Mouse & USB Drive
RJ45 Ethernet to Router and Internet
PTZ & Alarm Connections (Cameras not included)
Power to DVR
Splitter - 8 camera/ 1 Power
Video to DVR Channels 1-8
AV Cable: BNC/ DC Power (1 per Camera)
Power to Cameras
Power from 120V
DC Converter - 12V
Video to Camera
Power to Camera

SYSTEM START UP

Power On/Off

To power the system On/Off, connect the power cable to the DC 12V port on the rear panel. Flip the toggle switch on in the back of the DVR. At startup, the system performs a basic system check and runs an initial loading sequence. After a few moments, the system loads a live display view.

Power Switch

Video Icons	Function
	Indicates the channel is recording.
	Video is unavailable on the channel
	Camera speaker icon stays visible on screen
	Motion is detected on the channel
	Indicates that the monitor is touring camera channels
	Indicates audio output is from this channel

Main Viewing Screen

User Login

Password

ATTENTION: By default, passwords are disabled on the system. You do not need to enter a password when accessing any system menus. However, for security purposes, it is highly recommended to enable passwords on the system using the Password Menu. See “Password” section for details on setting up passwords. Click OK to confirm password.

User Login Menu

Quick Access Menu

When using the mouse, use the Quick Access Menu to access several system options, including the Main Menu. Select one of the following options:

- MAIN MENU: Opens the main system menu
- Record Mode: Allows the user to select the record setting for any or all channels.
- Search: Open the Search Menu to view recorded video
- PTZ Control: Opens the PTZ control menu
- Start Tour: Allows user to start touring the cameras in sequence.
- Volume Regulate: Allows volume adjust during playback mode or when monitoring.
- Logout: Provides options to Logout, Shutdown or to reboot system.
- View 1: Allows viewing of one camera in full screen.
- View 4: Allows viewing of 4 cameras on screen.
- View 8: Allows viewing of 8 cameras on screen, with one screen in larger view.
- View 9: Allows viewing of 8 cameras on screen.
- To close the Sub-Menu, click anywhere on-screen.

Main Menu Access

To open the Main Menu: Right-click anywhere on-screen to open the Quick Access Menu and select MAIN MENU (mouse only), or press the MENU button on the remote control or front panel of the system. NOTE: If passwords are enabled on the system, enter the 6-digit numerical password to open the Main Menu.

Main Menu

Main Menu

1. RECORD SEARCH: Search for recorded video on the system.
2. RECORD: Configure recording parameters (quality, resolution), set record modes, and enable/disable audio recording. Note: Audio capable cameras (not included) are required for audio recording on the system.
3. HDD MANAGE: Display hard drive status and format the internal hard drive of the system.
4. SYSTEM: Open the Basic Setup Menu, which lets you set the system language, date and time, passwords, and configure display, audio and video settings.
5. ADVANCED: Opens the Advanced Setup Menu, which lets you set mail options, Alarm settings, look up system version information, motion detect, enable mobile monitor, AutoMaintain, configure PTZ, set network settings.
6. EXIT: Closes the Main Menu.

PASSWORD SETUP

Setting Up Passwords & User Permissions

When you first startup your DVR, you are automatically logged in as the ADMIN. **By default, passwords are disabled on the system. You will not need a password to log in or access menus.** You will not need a password to access your system using the browser-based remote software. Click ok to access this menu.

The system employs three levels of user authorities. The levels are as follows:

- ADMIN (administrator): Has full control of the system, and can change both administrator and user passwords and enable/disable password checking and can add or delete user authorities.
- DEFAULT USER (normal user): Only has access to live viewing, search, playback, and other limited authorities.
- GUEST: Only has access to live viewing, search, playback, and other limited authorities.

For security reasons, it is highly recommended to enable passwords on your system. If you enable passwords, select a 6-digit USER password. The ADMIN and USER passwords must not be the same.

Modify Password

Modify Account

To Set Password
Click on Main Menu, System, and Account to reach the Account Configuration Screen.
Click on MODIFY PASSWORD
Select the user name
Using the virtual mouse, input the Old (existing) PASSWORD, NEW password.
Click OK to confirm. The system will confirm the change.
Click OK to exit.

Only the ADMIN can ADD or MODIFY a GROUP or USER. USER can modify their password only.

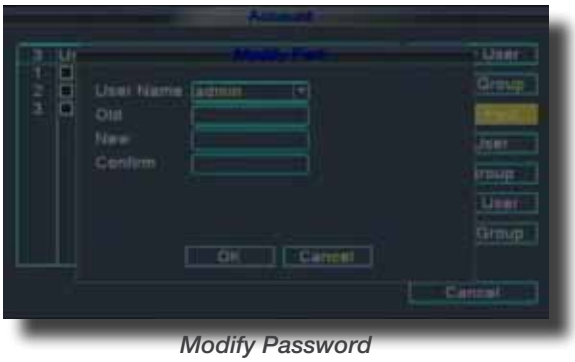
To ADD a Group or USER
Click on Main Menu, System, and Account to reach the Account Configuration Screen.
Click on ADD GROUP or ADD USER
Select the GROUP or USER name
Using the virtual mouse, to input the name of the group or user.
In the Authority section, choose the specific allowable actions that you want this group or user to have access to by clicking the appropriate check box.
Click OK to confirm.
The system will confirm the change.
Click OK to exit.

To Modify the Group or User
Click on Main Menu, System, and Account to reach the Account Configuration Screen.
Click on MODIFY GROUP or MODIFY USER
Select the GROUP or USER using the drop down menu.
In the Authority section, choose the specific allowable actions that you want this group or user to have access to by clicking the appropriate check box.
Click OK to confirm.
The system will confirm the change.
Click OK to exit.

There is no limit in the user and user group. You can add or delete the user group according to user definition.

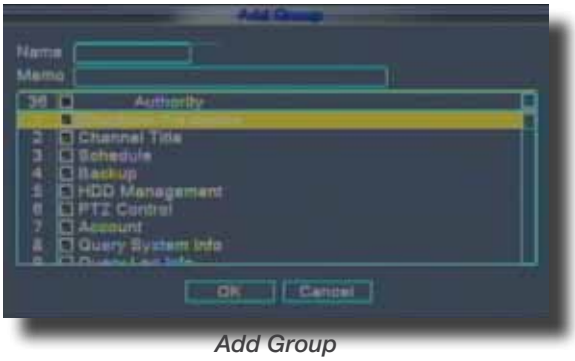
Legal characters include: letter, number, underline, subtraction sign, dot.

For your system security, please modify your password after first login.



Modify Password

Add User



Add Group

Account Modify

CAMERA DISPLAY SETUP

Setting Up the Live View Video Screen

Use the GUI DISPLAY screen to set up. Access the GUI display screen from the MAIN MENU , click SYSTEM, then CLICK GUI DISPLAY.

GUI Display

To set-up the display select SYSTEM from the MAIN Menu; then select GUI Display.

1. Configure the following options:
   - CHANNEL TITLE: Click any of the fields and enter a new title for the selected channel using the Virtual Keyboard (mouse only)
   - VIDEO CHANNEL: This setting will reposition the channel title information during Playback. This change will not appear when viewing the channel live. To reposition the channel title; select TOPLEFT,BOTTOMLEFT, TOPRIGHT, BOTTOMRIGHT, or OFF. If OFF, the title will not be displayed for the selected channel.
   - VIDEO TIME:This setting will reposition the channel title information during Playback. This change will not appear when viewing the channel live. To reposition the system time; select TOPLEFT, BOTTOMLEFT, TOPRIGHT, BOTTOMRIGHT, or OFF. If OFF,
   - the title will not be displayed for the selected channel
   - COLOR SETTING: Adjust BRIGHTNESS, CONTRAST, SATURATION and HUE for the selected channel. You can also select COLD< WARM OR DEFAULT COLOR by pressing the appropriate button.
   - PREVIEW TIME: Select ON/OFF to show/ hide the date and time during live viewing
   - PREVIEW CHANNEL: Select ON/OFF to show/ hide the name of the channel during live viewing
   - RECORD STATUS:Select ON/OFF to show/ hide the record status icon during live viewing
   - ALARM STATUS: Select ON/OFF to show or hide the alarm status screen while in Live view. Click NEXT PAGE to change the settings for the remaining channels
2. Click OK to save your settings. Click EXIT.

Video SET UP and VGA/Monitor Display

Use the Video menu to set the resolution and camera setup on the system. Access the VIDEO set up screen from the MAIN MENU , click SYSTEM, then VIDEO.

To configure Video options:

1. Under RESOLUTION, select 800 x 600, 1024 x 768, 1280 x 1024, 1366 x 768, 1440 x 900.
2. Under VIDEO STANDARD, select NTSC or PAL. (See info box below)
3. Under TOUR TIME (SECOND), enter with virtual keypad from 5 to 120 seconds

To Adjust VGA or Monitor Display:

Click OUTPUT ADJUST. Using your mouse you can move the Top, Bottom, Left and Right video input to fit your viewing screen as appropriate. Click OK to save settings.

NTSC or PAL?

NTSC (National Television Standards Committee) is the video system or standard used in North America and most of South America. In NTSC, 30 frames are transmitted each second. Each frame is made up of 525 individual scan lines.

PAL (Phase Alternating Line) is the predominant video system or standard mostly used overseas. In PAL, 25 frames are transmitted each second. Each frame is made up of 625 individual scan lines.

GUI Display Screen

Alarm Status

Color Set-up

Read Output Adjust Screen

LANGUAGE, DATE AND TIME

Setting Up Language/Date/Time

The SYSTEM Setup Menu contains the following sub-menus: Language, Date/Time, Password, Display, and Video/Audio.

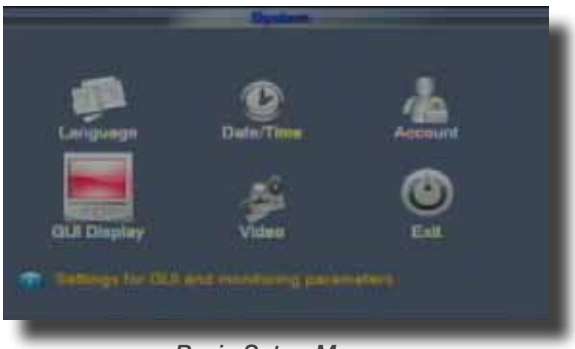
Language

To change the system language: from the LANGUAGE drop down menu select the language amongst 26 different languages. Click OK to apply. Click EXIT to close the menu.
NOTE: The system will change the language after a restart. A pop up box will ask if you want to perform a restart immediately or not. The default is English.

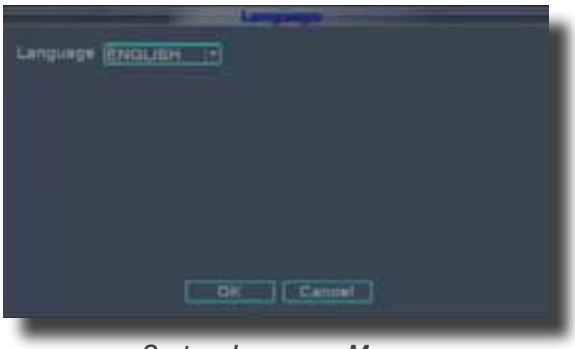
Date/Time

It is highly recommended to immediately set the date and time when first setting up your system. To set the date and time:

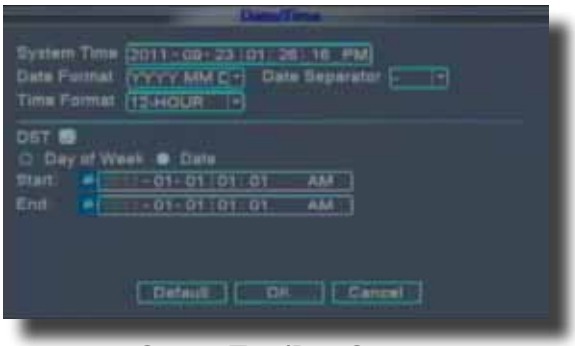
1. Click DATE/TIME and configure the following options:
   - SYSTEM TIME: Click into each section for the Month, Day, Year, Hour, Minute, Second and AM/PM. Use the virtual keypad to make your changes.
   - DATE FORMAT: Select DD/MM/YYYY, MM/DD/YYYY, or YYYY/MM/DD
   - DATE SEPARATOR: Select . or - or / to use as separators for the date.
   - TIME FORMAT: Use the drop-down menu and select 12HOURS or 24HOURS. If 12HOURS is selected, then set AM or PM.
   - DST: Place a check in the DST box if you want to set daylight savings time. Daylight savings time can be set by DATE or by Day of the Week. Selecting Day of the Week allows you to the specific on which to start and end the DAY light savings time. You can also use check the calendar icon and select start and stop dates as desired.
2. Click OK to save your date and time selections. Click EXIT.



Basic Setup Menu



System Language Menu



System Time/Date Setup

Why Set a Date & Time?

It's important to set the proper date and time before continuing so that you can easily locate recorded events. Inaccurate dates and times on files may affect their admissibility as evidence in court. In addition, when changing current time settings, to avoid possible confusion with the time stamps on recorded and currently recording files, stop all ongoing recording processes before altering the system time and restart recording using the new settings.

RECORDING

RECORD Mode

Configure Recording Options:
You have three recording modes: Schedule, Manual and Stop.
By default, the DVR is set to record by schedule.

To set the recording options, right click from the mouse and click on RECORD MODE. There you can select amongst the three options for each individual channel. Or you can highlight ALL to make a change to all channels at once.
SCHEDULE: System will record according to schedule that is set.
MANUAL: System always records. System records
not matter what settings are in place.
STOP: System does not record , no matter what other parameters are set.

RECORD Settings
In order to set the record settings, from the Main Menu, click RECORD. Set parameters as follows:

1. Under RESOLUTION, select CIF, HD1, or D1 or QCIF. NOTE: Channels 1 & 2 allows options D1, HD1, CIF and QCIF.; Channels 3-8: allow settings of CIF and QCIF.
2. FRAMERATE: Choose the recording frame rate 1-30, (fps – frames per second). The lower the value, the less life-like and more jerky the recorded movements will be. However, a lower frame rate uses less HDD space. Make your choice depending on the precision with which you want to follow the events being recorded. Frame-rate of each channel can be adjusted but is limited by the total resources available. The total frame rate for all channels combined cannot exceed 420 (NTSC) fps. The ratios of D1, HD1 and CIF are as follows: 1 D1= 4 x CIF, 1 HD1 = 2 x CIF.QCIF=1/4 CIF.
3. QUALITY, The quality rating is on a 6 point scale. The selections are 6-High, 5,4,3,2,1-Low.
4. AUDIO, select On to enable or disable. If audio recording is enabled, the system will record audio from connected audio capable cameras (not included). See caution statement on audio recording in Video section.

Detailed Settings for RECORD Mode:
Select RECORD CONFIG. The RECORD CONFIG screen will appear. From this screen, you have the ability to select a schedule or manually record. Also, you may select to stop recording, which will disable the recording feature.

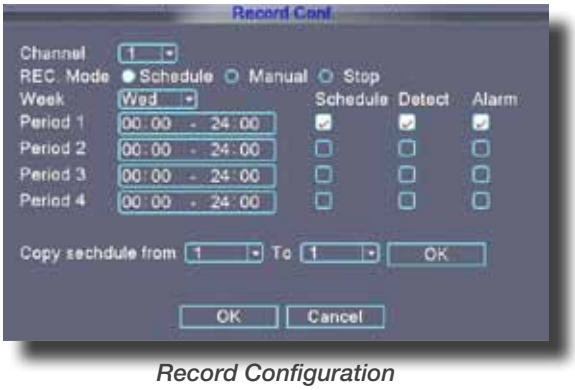
To schedule a recording:

1. Select a channel and then highlight SCHEDULE
2. Set the Period Times for up to 4 period settings by using the virtual mouse and setting the start and stop times for each period.
3. Click check box for SCHEDULE, DETECT(motion detect) or ALARM to enable the appropriate recording type. Click NEXT PAGE to adjust cameras 5 through 8. Click OK to save and exit.
4. Copy the setting (if desired) to another or all channels as desired.
5. Click OK. to save settings.
6. Record Size: Using the virtual mouse, set the RECORD SIZE from 1-120 minutes.
7. Click ok to confirm selections.

Record Mode

Main Menu

Record
Channel CH1 CH2 CH3 CH4
Resolution CIF CIF CIF CIF
Frame Rate 25 25 25 25
Quality Good Good Good Good
Audio OFF OFF OFF OFF
REC. Mode Record Conf.
REC. Size 60 min Region Cover
Next Page Default OK Cancel
Record



Record Configuration

Audio/Video Recording

Caution: Audio surveillance in some states is illegal or requires permission from one or both parties to record someone's voice. Laws are also different from residential vs. commercial applications. Some federal, state, and local laws prohibit certain surveillance activities and/or the use or distribution of the information obtained from such activities. Prior to using this system, you should become familiar with the pertinent laws to ensure compliance with those applicable to surveillance activities.

CCTV Resolution

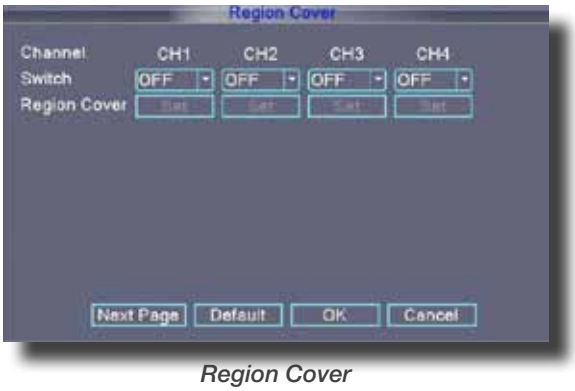
CCTV resolution is measured in vertical and horizontal pixel dimensions and typically limited by the capabilities of both the camera and the recorder that you are using for your CCTV surveillance installation. CCTV systems use an analog video signal. For television specifications (which CCTV uses) the highest resolution that can be captured and stored is 704 x 480 (NTSC for the United States) and 720 x 576 (PAL for Europe). This resolution is known as D1 resolution. A high end CCTV recorder is capable of recording at up to D1 resolution.

CCTV Resolutions
D1: 704 x 480
HD1 (2CIF): 704 x 240
CIF: 352 x 240
QCIF: 176 x 120

Region Cover

REGION COVER lets you block a specific portion of a channel you do not want recorded or shown on the display screen. This can be useful if you need to conceal a sensitive area being captured by the camera. To use the REGION COVER:

1. From record menu click REGION COVER. The REGION COVER menu opens.
2. Choose a channel you wish to apply the Region Cover.
3. Select ON from the SWITCH drop-down menu.
4. Click SET in REGION COVER. The screen will be replaced by the full-screen camera view of the desired channel. Using the mouse, place the cursor just outside the region cover square. Click and drag the black square with your cursor to place and size the area you wish to conceal. Up to 4 separate cover areas are available to set.
5. Right-click anywhere on the screen to return to the Region Cover menu.
6. Click OK. Click OK in the RECORD window. Click EXIT.

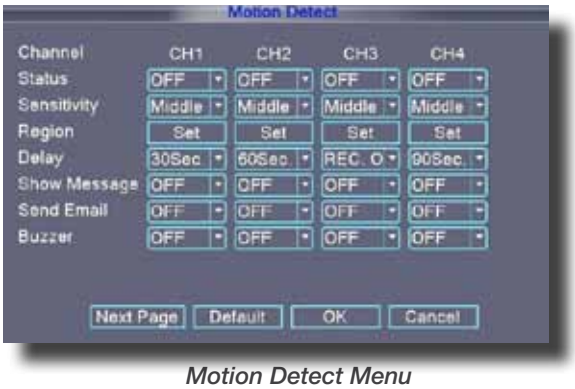


Region Cover

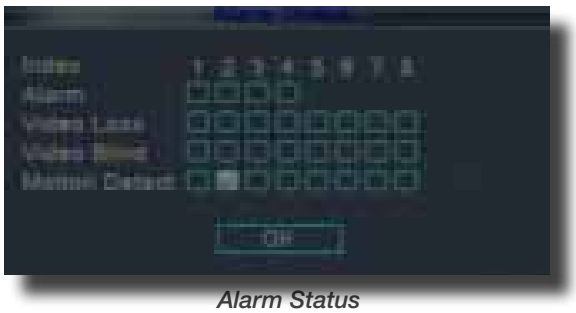
Motion Detect Setup

You can configure motion detection for each channel (Camera) connected to the DVR. To configure motion detection:

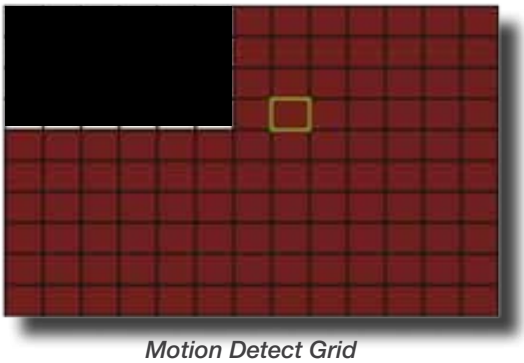
1. From the Main Menu click ADVANCED. Then click Motion Detect.
2. Under STATUS, select ON to enable motion detection for the desired channel. Click NEXT PAGE for additional channels.
3. Under SENSITIVITY, select from the LOWEST setting to the HIGHEST sensitive setting.
4. Under REGION, click SET. The red motion detect grid appears over the selected channel in full screen.
5. Click the blocks in the grid to enable/disable motion detection. Red=motion detection enabled; White=motion detection disabled.
6. Right-click anywhere on the screen to return to the Motion Detection menu.
7. The DELAY, setting will cause the recording to continue after motion stops for the number of seconds selected.
8. SHOW MESSAGE ON will display the alarm status when motion is detected. -See alarm status screen
9. SEND Email enables/disables sending an email alert if desired. Email must be configured.
10. BUZZER enable the DVR to sound or not sound if motion is detected. Click NEXT PAGE to set additional camera channels.
11. Click OK to save settings.



Motion Detect Menu



Alarm Status



Motion Detect Grid

PLAYBACK

SEARCH Mode

Record Search

View recorded video on the system through the SEARCH Menu. Video can be played from the attached hard drive or from an attached backup device. Device must be attached prior to search being made.

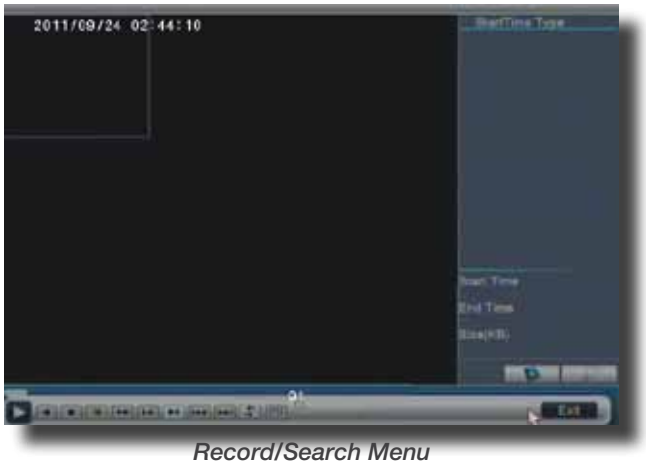
1. The Playback mode can be accessed in two ways. Right-click anywhere on the screen and select SEARCH from the Quick Access Menu. or from the MAIN MENU select SEARCH. The SEARCH screen opens.
2. CLICK ON the magnifying glass to begin your file search which will bring up SEARCH CONDITION screen.
3. FILE TYPE: Allows you to select the type of recorded video. This would include video captured by ALARM, MD (motion detection), Alarm/MD (ALARM AND MOTION DETECTION), Manual and General. Or you can select ALL to capture all file types.
4. Select the channel or channels you would like to search. Do this by highlighting or removing the highlight of the channel number.
5. Select the START TIME and END TIME of your search by clicking either the CALENDAR icon or by placing your mouse in the date and time field and using the virtual keyboard to set your search parameters.
6. Click the SEARCH button and the system will list the requested file information on the right side of the screen.

Playback a Recording

1. Click on a file in the file List on the right side of the screen. The file start and end date/time information is provided below the file list.
2. To Play a video recording, Double click the file to begin playing the video or you can select PLAY triangle button on the bottom left of the screen in order to play all recordings starting with the first date.
3. To Play a different file, click the stop playing button on the bottom of the screen. Then select another file to play. See step 2.

NOTE: Files Type R means regular or common recording, M means recording was triggered by motion detection, or video loss of the system, A means the recording is triggered by an alarm. H means manual recording.

Button	Function	Button	Function
▶ ⏸	Play/Pause	◀	Backward
■	Stop	▶	Slow Play
⏩	Fast Play	⏮	Previous Frame
⏭	Next Frame	⏮	Previous File
⏭	Next File	🔁	Circulation
⛶	Full Screen		



Record/Search Menu

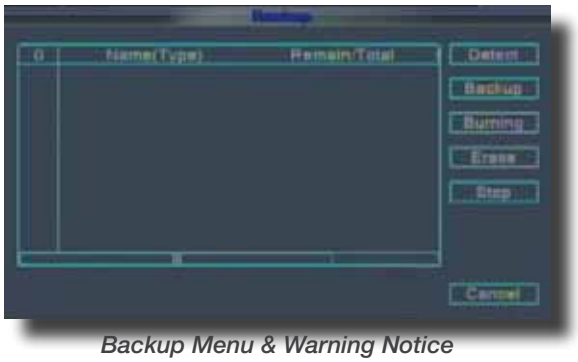
Search Condition Screen

On-screen Playback Controls

Backup
NOTE: The system is compatible with most major brands of USB flash drives, with capacities from 256 MB to 4 GB.

To backup recorded data:

1. Connect a blank USB flash drive to the Bottom USB port on the back of the DVR.
2. Perform a search for the records you would like to backup. Select the file (s) you want to backup from the file list.
3. Click BACKUP Icon button , located near the bottom right of the screen. The BACKUP screen will appear.
4. Click DETECT button so that DVR system recognizes the USB backup device. Select the backup device by placing a check in the box next to your backup device.
5. Click BACKUP button in the BACKUP screen, the BACKUP Sub Screen appears
6. Click START to immediately begin copying the files to the USB flash drive
   NOTE: Backup progress appears in the status window. DO NOT remove the USB flash drive during backup. If the space in backup device is less than recording file, the system will prompt “Space not enough”... After backup is complete, you can remove USB device.



Backup Menu & Warning Notice

HDD MANAGEMENT

Hard Drive and USB Options:

The HDD Manage button displays essential information about the system’s internal hard drive, and lets you format the internal HDD and external USB flash drive (not included). To access this menu, from the MAIN MENU click HDD MANAGE.

The HDD menu displays the following:

1. TYPE: Shows the type of disk Read or Read/Write
2. CAPACITY: The size (in gigabytes) of the internal hard disk drive. The size of your system`s internal hard drive will vary by model
3. LEFT CAPACITY: The space (in gigabytes) remaining on the system`s internal HDD
4. STATUS: The system will display “OK” for normal operation
5. HDD FULL: Select OVERWRITE or STOP RECORD. If Overwrite is enabled, the system will record over the oldest video data once the HDD is full. If STOP RECORD is enabled, the system will stop recording once the HDD is full.
   Note: The recover button is there for future use.

HDD Management

To Format the Hard Drive:

1. Highlight the hard drive in the HDD MANAGE screen.
2. Click the FORMAT button.
3. The system will ask you to confirm the format operation.
4. Click OK to confirm or CANCEL to return to previous screen.

Hard Drive Format Warning

Formatting the Internal Hard Drive
If you installed a new hard drive, you must format the hard drive in the DVR before it can be used. Clicking on the HDD Format button will begin the formatting process. After formatting, the system will restart. ATTENTION: Formatting the internal HDD erases all video data. This step cannot be Undone.

ADVANCED SETUP

Use the ADVANCED SETUP menu to configure alarm settings, lookup version information, set motion detection, mobile surveillance, maintain system parameters, set PTZ configurations and network settings. The Advanced Setup menu contains the following sub-menus: Alarm Set, Version, Motion Detect, Mobile Monitor, Auto Maintain, PTZ Config, and Network

Advance Setup Menu

ALARM

Alarm and Email Options:

To access Alarm the ALARM menu, choose ADVANCED from the Main Menu and then select ALARM SETv. NOTE: External alarm devices must be connected to the alarm block on the rear panel of the DVR in order to use the I/O (input/ output) alarms of the system. See next section “Alarm Inputs” and “Alarm Inputs Diagram” for details on attaching alarm inputs.

Alarm Status

To configure alarm settings:

1. To activate Loss Alarms use drop down menu and select ON/OFF:
   - HDD LOSS: The alarm will sound if the internal HDD is missing when DVR is started
   - DISK NO SPACE: The alarm will sound when the HDD is full (overwrite must be disabled)
   - SHOW VIDEO LOSS: The alarm will sound when a camera is disconnected
2. Under I/O CHANNEL, select Normal Open, Normal Closed, or STOP for Alarm input. There are 4 alarm inputs. Alarm Input 1 on Alarm Block controls CH1 1 (Camera 1). Scroll down to view additional channels. Note: If in the RECORD screen, a Channel is set to OFF, ALARM is also disabled for that Channel.
3. Under SEND Email and SHOW MESSAGE, select ON or OFF to activate this option.
4. If MAIL is selected, click on the MAIL button and then fill in the email information necessary for an email to be sent when the alarm is detected.

Alarm Setup Menu

Email Setup:

The system can send an email notification for triggered events on the system. To setup email notification:

1. Under Email, select ENABLE.
2. Under SMTP SERVER enter the SMTP address of your email server. For example, smtp.gmail.com
3. Under PORT, enter the SMTP port of your email server.
4. Check SSL (SECURE SOCKET LAYER) if needed. SSL deals with encryption. Only advanced users should enable this option.
5. Under USER NAME, enter the email server user’s name.
6. Under PASSWORD, enter the password of your email server.
7. Under SENDER, enter the sender email address.
8. Under RECEIVER, enter the email address that will receive the email notification.
9. Click OK.

Email Setup Screen

Email Tip

Depending upon your settings, the system can generate a lot of email alerts. For that reason, we recommend setting up a dedicated email address specifically for the Security System alert notices. Also to better manage your alerts, you will want the alert emails to go to a different account than the one sending them.

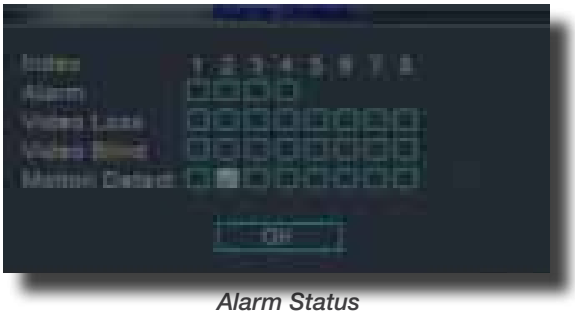
Video Blind
Video Blind is a feature that detects when the camera is covered or is being obstructed by light with the inability to capture live camera viewing. There are 6 sensitivity settings from Lowest to Highest. You are given the option of being informed of this event through Email or with the alarm status screen displayed. Click OFF or On to enable.

Video Blind Screen

Alarm Management
DELAY setting is the amount of time that recording will continue after the alarm is cleared.

ALARM OUTPUT sets the amount of time the output relay contact will stay activated after the alarm is cleared.

Alarm Inputs:
Alarm inputs are devices or switches that activate when a door, window, cabinet etc. is opened or accessed. For example, you might want to only have the camera record when someone opens a tool cabinet or when a door opens vs. recording when motion occurs around those areas. There may be people moving by those areas frequently but you are only concerned about when those areas are accessed. This saves hard drive space and makes it easier to find an event that was recorded to the hard drive.



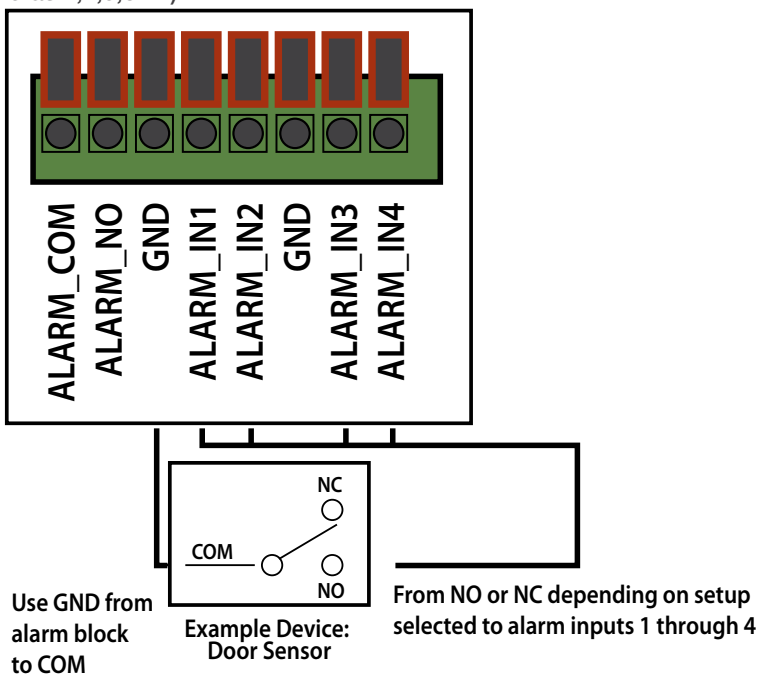
Alarm Status

See Alarm Inputs Configuration diagram at the bottom. Use the GND from the alarm block on the DVR and connect to Common of the sensor device. Then using the NO or NC of the sensor device and connect to the appropriate Alarm In 1,2,3,or 4.

Alarm Ouput:
Alarm output is used to activate an external device such as a horn or light after an alarm is triggered. To do this the DVR uses a dry contact normally open relay. To configure alarm ouputs, connect the external device to the NO (Normally Open) and COM (Common) connections on the alarm block as required by the device. The maximum contact rating is 24 VDC @ 2 A. Alarm input can start recording only on the camera # that coincides with the alarm input # (cameras 1,2,3,on 4).

Alarm Manage Screen

Alarm Inputs Configuration



Note: Ground must be connected to GND in alarm block for device to operate properly

SYSTEM INFO AND SYSTEM UPDATE

System Information:

View system information, including the firmware version, MAC address, and serial number of the system. To access this menu, from the MAIN MENU click ADVANCED then click VERSION.

System Info

Maintaining your System

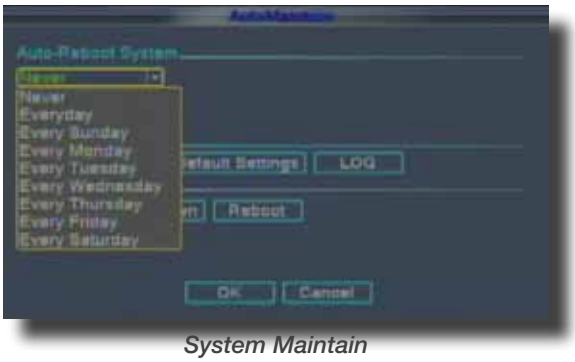
Use the AUTO MAINTAIN menu to set the parameters for rebooting the system, review/update default settings and review the system log. To access this menu, from the MAIN MENU click ADVANCED then click AUTO MAINTAIN.

To enable AUTO MAINTAIN:

1. Under AUTO-REBOOT SYSTEM, use the drop down menu to select the schedule for an auto-reboot of the system. The selections include NEVER, EVERYDAY, or every week with a choice of the specific day of the week.
2. Click OK to confirm your selection.

To upgrade system firmware:

1. Copy the firmware file to an empty USB flash drive. The firmware file should not be in a folder.
2. Connect the USB flash drive to the top USB port on the back panel of your system.
3. Open the AUTO MAINTAIN (MAIN MENU>ADVANCED>AUTO MAINTAIN).
4. Click UPGRADE POSITION.
5. Click UPGRADE FILE:
6. Click UPGRADE button and the system will scan the USB flash drive and begin updating the firmware. Do not remove the USB flash drive while the upgrade is taking place.



System Maintain

Default Settings

To restore factory settings:

1. Click DEFAULT SETTINGS. This brings you to the DEFAULT SETTINGS screen.
   - Options available to reset are: General, Record configurations, Network, Gui Display, Account, Encode, Alarm Set, Net service, PTZ configuration, or choose SELECT ALL to restore all settings.
2. Check or highlight the parameters you want to set to default and then click OK.

Log

LOG allows you to review activity on your system. This includes activities such as SYSTEM, CONFIGURATION, STORAGE, ALARM EVENT, WEEK DAY, ACCOUNT, PLAYBACK or you can select ALL.

- SYSTEM - Shows events such as system shut down, system reboot and time setting events
- CONFIG – Shows events GUI changes, volume setting changes, PTZ setting changes, etc.
- STORAGE – Shows events involving storage devices
- ALARM EVENT - For future use
- WEEK DAY - To choose log for specific day
- ACCOUNT – Shows user account login and logout times
- PLAYBACK – Shows file search events

Select the beginning and ending date and time for your search by placing the cursor in the START TIME and END TIME boxes. Use the virtual mouse to make these settings.
Click SEARCH
Use the scroll on the right to move up and down to the specific event that is logged. The system will show 128 events per page. Click NEXT PAGE to another page of events. REMOVE provides the ability to clear all items in the LOG.
Click CANCEL to go back to the AUTO MAINTAIN screen.

LOG
Type All
Start Time 2011-09-23 12:00:00 AM
End Time 2011-09-24 12:00:00 AM
Search
No. Log Time Type LOG
2 2011-09-23 11:47:48AM Save Configuration Location
3 2011-09-23 11:46:29AM Save Configuration Net Common
4 2011-09-23 11:46:29AM Save Configuration Net DNS
5 2011-09-23 11:46:29AM Save Configuration UPNP
6 2011-09-23 11:46:28AM Shut Down 2011-9-23 11:46
Remove
Cancel

Log Screen

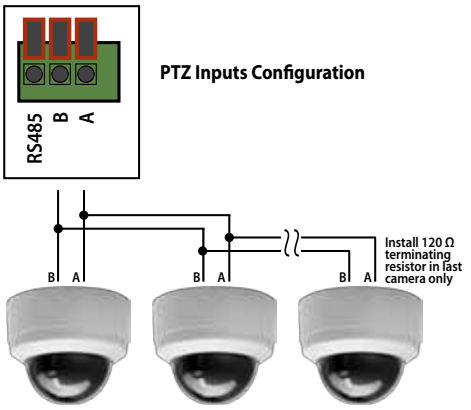
Additional Options:

You can LOGOUT, SHUTDOWN or REBOOT from the AUTO MAINTAIN screen by clicking the appropriate button.
Click OK to confirm your selection. Or click cancel to return to the ADVANCED screen.

PAN TILT ZOOM...PTZ

Pan/Tilt/Zoom (PTZ) Setup:

NOTE: Consult the instruction manual of your PTZ camera for complete information about your camera, including protocol, baud rate and parity settings before beginning setup. Enter these settings in the DVR.



Step 1: Connect your PTZ Camera to this DVR

Connect a PTZ camera to the BNC and DC power cables. Also, connect the communication cable from the PTZ camera to the 485A (TX, +) and 485B (RX, -) control inputs to the PTZ block on the back of the DVR. Note there is only one set of PTZ control inputs (485A & 485B), however multiple PTZ cameras can be set up by making parallel connections. See diagram for details and see "PTZ Camera Setup" Info box for additional information.

PTZ Camera Setup

NOTE: It is recommended for best results to use 120Ω shielded twisted pair cable of a sufficient gauge to meet your application length. 18 to 22 gauge is usually sufficient. In addition, be sure to only install the 120Ω terminating resistor that comes with your PTZ camera in the last parallel connected camera. Keeping that resistor in all cameras can possibly degrade the signal and can cause unexpected or loss of operation and control.

PTZ Setup

Step 2: Configure PTZ Communication Settings:

To access this menu, from the MAIN MENU click ADVANCED then PTZ (see PTZ Setup image). Click the NEXT PAGE button on the bottom left of the screen to access all 8 channels available on this DVR. The PTZ setting options for each camera can be selected independently and are available next to each camera's channel number.

1. Under PROTOCOL, select the appropriate protocol setting for the camera. on the selected channel.
2. Under BAUD RATE, select 1200, 2400, 4800, 9600 or 19200, 38400, 57600 or 115200.
3. Under DATA BITS, select 5,6,7 or 8 as appropriate.
4. Under STOP BITS, set to either 1 or 2.
5. Under VERIFY, select ODD, EVEN, MARK, SPACE, or NONE parity bits. Note: Mark = 1, Space = 0 parity bits.
6. Under ADDRESS, enter an address from 001~255 using the Virtual Keyboard.
7. Click OK in the confirmation window.
8. Click EXIT in all menus until all windows are closed.

PTZ Config: 01

Step 3: Configure the Operation & Control of your PTZ Camera(s):

In Live View, double click on the Channel with the connected PTZ Camera to open to full screen view. This selects the channel to configure and control.

1. From the Quick Access Menu select PTZ CONTROL screen. (See image at left)
2. From the PTZ Setup screen you can adjust:

- Pan Speed: Adjusts the speed the camera will move.
- Zoom: "+" Zooms in and "-" zooms out
- Focus: "+" and "-" focuses the picture.
- Iris: "+" lets more light in and "-" removes light from the picture. This is useful to correct backlight issues.
- Directional keys: Left and Right Arrows control the pan; Up and Down arrows control the tilt.

PAN TILT ZOOM...PTZ

Pan/Tilt/Zoom (PTZ) Setup Continued:

PTZ functions include: PTZ directional control, zoom, focus, iris, operation setup, preset creation, set tour (patrol) sequences between preset views, and scan (pattern) between 2 locations.

From the PTZ Control:01 screen you are able to make settings for:
SPEED: Set the PTZ rotation range. Default range: 1 ~ 8.
ZOOM: Click button to adjust the zoom multiple of the camera.
FOCUS: Click button to adjust the focus of the camera.
IRIS: Click button to adjust the iris of the camera.
DIRECTION CONTROL: Control the PTZ rotation. 8 directional control with mouse and screen, 4 directional control using front panel buttons.

Single view is required when you are controlling the camera with the mouse.

PTZ Control: 01

PTZ Play

PTZ Config

Special functions:
Preset: A defined pan, tilt and hold camera position. You can enter up to 255 preset locations.

Set a PRESET location:
1. Using the PTZ Control:01 screen, position the camera to desired location, including zoom, focus and Iris settings.
2. Click the SET button. This will take you to the PTZ Config screen.
3. Highlight PRESET.
4. Input the number for the PRESET using the virtual keyboard & click the SET button. The PRESET position is now set.
5. Repeat steps 1,2 and 3 to set another PRESET location.
6. To call up a Preset Location: Click on PAGE SWITCH to reach the PTZ Play screen. Input the preset number and click PRESET. The camera will move and locate to the corresponding PRESET.
7. To Clear a PRESET, Input the preset number from the PTZ Config screen, highlight PRESET, and click DEL PRESET.

Set Up a Tour Between PRESETS:
TOUR: A collection of Preset locations grouped in a specific sequence.
1. Click SET button from the PTZ Control:01 screen. This will bring up the PTZ Config screen.
2. Highlight Tour
3. Input the Patrol Number (TOUR Number) to identify the Tour.
4. Input the number of the PRESET where you want to start the tour.
5. Input the number of seconds in the INTERVAL box. The INTERVAL time should include the amount of time it takes to get to the PRESET location plus the amount of time you want the camera to view this PREST location before continuing the TOUR.
6. Press ADD PRESET
7. Repeat for as many presets you want to include in the Tour up to 255 presets.

To DELETE a TOUR: Input the Tour No. on the PTZ Config screen and press DEL TOUR.

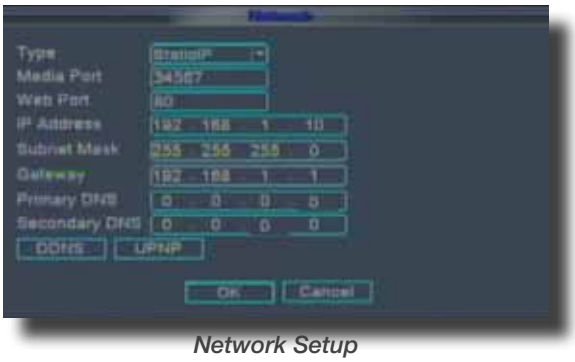
Set UP a PATTERN:
Pattern: The movement of the camera from one location to another location, continuously in a back and forth motion.
1. From the PTZ Control:01 use the mouse or the PTZ TRACE button to position camera for position 1.
2. Click SET button from the PTZ Control:01 screen. This will bring up the PTZ Config screen
3. Highlight PATTERN
4. Input the Pattern Number to identify the Pattern.
5. Click Begin button. You have now created the position where the Pattern will begin.
6. Repeat steps 1,2, and 3 to set up the second position.
7. Click END button. You have now created the position where the Pattern will end.

PTZ TRACE:
PTZ TRACE allows you to control the movement of the camera by clicking and holding the mouse. This is helpful when you want to position a camera to an exact location. Click PTZ TRACE from the PTZ Control:01 screen. Left click the mouse and hold down while moving the mouse. The camera will trace the direction the mouse is moved in. Release the mouse when finished.

To Play a Preset, Tour or Pattern
To Play a Preset, Tour or Pattern, Click PAGE SWITCH from any of the PTZ screens until you reach the PTZ PLAY screen. Input the Preset, Tour or Pattern number you desire to play. Then clikc Preset, Tour or Pattern to start the PTZ action.

NETWORK SETUP FOR REMOTE ACCESS

Use the NETWORK SETUP menu to configure your network and DNS settings for remote access. If you are only going to access the DVR locally from a computer attached to the same router as the DVR, you only need to configure settings using either the DHCP or STATIC IP. Because you are on the same network, port forwarding and knowing the public IP address are not necessary. You will just access the DVR by entering the IP address of the DVR from the NETWORK setup into the Internet Explorer browser window. If you are going to take advantage of the Remote Surveillance feature, such as for a smart phone or to view your system outside of your network over the internet you will need to review and set up Port Forwarding and the DDNS. After you setup the NETWORK settings using DHCP , STATIC IP or DDNS, see the REMOTE SURVEILLANCE section for further instructions.



Network Setup

There are five options for configuring the DVR to be accessed remotely: DHCP, Static IP, UPnP, PPPOE, and DDNS. To access this menu, from the MAIN MENU click ADVANCED then NETWORK SETUP. Be sure your router or network is connected to the LAN port on the back of the DVR.

DHCP (Dynamic Host Configuration Protocol)

DHCP is a protocol used by networked devices (clients) to obtain various parameters necessary for the clients to operate in an Internet Protocol (IP) network. It allows you to quickly connect to your network and obtain an IP address from the router. After the initial setup, we recommend that you disable DHCP, then select STATIC from the TYPE drop down box and set the IP address between 1~100. For example, if your IP address is 192.168.0.107, change the last digits to 90 (i.e. 192.163.0.90). This ensures that port forwarding will not change in the event of power failure or resetting of your network.

To configure DHCP settings:

1. Select DHCP from the TYPE drop down box in the NETWORK SETUP Menu. You should see the message "Getting IP..." The router will assign an IP address. This is the IP address you will forward port 80 to on the router so you can access the DVR from remote computers See comment above to configure a static IP.
2. Click APPLY. Click OK in the confirmation window.
3. If necessary, change the Media and Web Port settings

Static IP

You will need to setup the network settings on the DVR to match the settings of the router to which your DVR is connected. This information can be obtained through your computer. Windows 7, Vista or XP all have similar ways to access this data.

To get the router settings:

1. To access the router's settings you will need to enter the Command (CMD) panel on your computer. It must be connected to the same router as your DVR.
   - In Windows 7 or Vista, from the "START" menu type "CMD" in the field that says, "Search programs and files" and hit ENTER or click on the magnifying glass icon.
   - In Windows XP select "Run" from the "START" menu. Type "CMD" after the prompt
2. Type "ipconfig" at the prompt and hit enter
3. You will get a screen that contains information similar to what is shown below. Within all of the information shown, locate the IPv4, Subnet Mask and Gateway addresses. These you will enter into the STATIC IP screen in the NETWORK SETTINGS menu in your DVR. See next step.

```
C:\Users\your id>ipconfig

Windows IP Configuration

Ethernet adaptor Local Area Connection:
  Connection-specific DNS Suffix.  . . .  : yourdomain.com
  Link-local IPv6 Address . . . . . . .  : fe80::e743:c4ae:fd28:cb3e%15
  IPv4 Address. . . . . . . . . . . .  : 192.168.1.10
  Subnet Mask . . . . . . . . . . . .  : 255.255.255.0
  Default Gateway. . . . . . . . . . .  : 192.168.1.1
```

Windows "ipconfig" Info Example

To configure Static IP settings in the DVR:

1. Select STATIC IP from the TYPE drop down box in the NETWORK SETUP Menu.
2. Enter your IP Address, Subnet mask, and Gateway info you obtained from your computer through the previous step in the respective fields using the Virtual Keyboard.
3. Click APPLY. Click OK in the confirmation window.
4. If necessary, change the Media and Web Port settings

Static IP Menu

UPnP (Universal Plug and Play)

UPnP Forum is an industry initiative designed to enable simple and robust connectivity among consumer electronics, intelligent appliances and mobile devices from many different vendors. This protocol is designed to allow networked devices, such as computers, printers, mobile devices to automatically discover each other's presence on a network and to connect seamlessly for data sharing and communications. NOTE: Your Router must support UPnP function to use this protocol.

To configure UPnP settings:

1. Enable the UPnP function in your Router.
2. In this DVR, Open the MAIN MENU and click ADVANCE.
3. From the Advanced Setup menu, click NETWORK.
4. Under UPnP, select ENGAGE.
5. Click OK.
6. Using a remote PC, open Internet Explorer.
7. In the address bar, enter your Router WAN IP address immediately followed by WEB PORT (no spaces). Example: http://XXX.XXX.XXX.XXX(Router WAN IP):XXX(WEB PORT)
8. Enter your system ADMIN password and select INTERNET. NOTE: If you have not enabled passwords on the system, leave the password field blank.
9. Click LOGIN.

PPPoE (Point-to-Point Protocol over Ethernet)

The Point-to-Point Protocol over Ethernet (PPPoE) is a network protocol for encapsulating Point-to-Point Protocol (PPP) frames inside Ethernet frames. It is used mainly with DSL services where individual users connect to the DSL modem over Ethernet and in plain Metro Ethernet networks. Use this option if you are going to attach the DVR directly to a DSL or Cable modem instead of a router.

To configure PPPoE settings:

1. Select PPPOE from the TYPE drop down box in the NETWORK SETUP Menu.
2. You will need to contact your ISP provider for the user name and password need to enter into the PPPOE NAME and PASSWORD fields.
3. Click.
4. If necessary, change the Media and Web Port settings.

PPPoE Setup

Web Port 80

NOTE: For added security, we strongly recommend changing Web port 80 on the system to any desired port not blocked by your Internet service provider (ISP). Please note however, that you will also need to update the Web port in your browser and open this new port in your router.

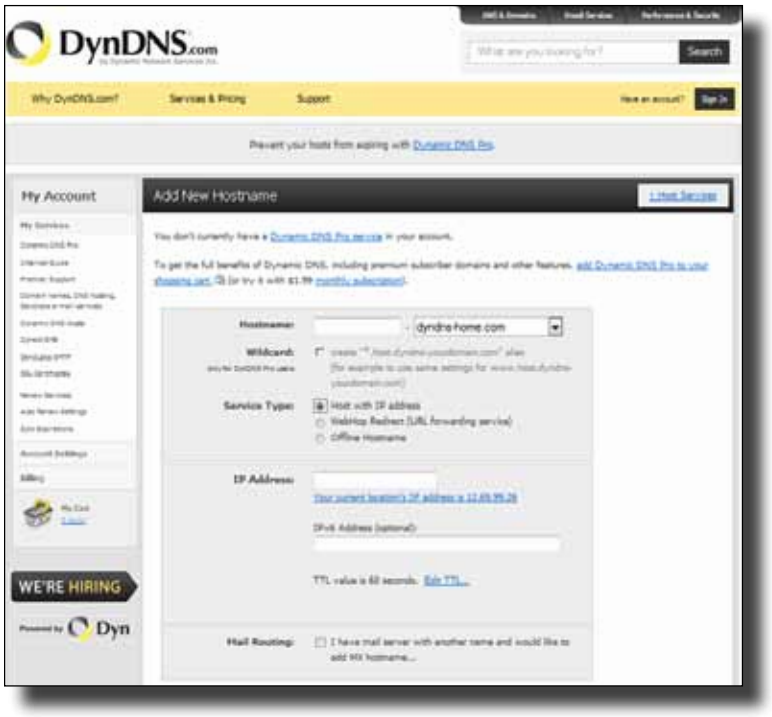
DDNS (Dynamic Domain Name Service)
A DDNS account allows you to set up a web site address that points back to your Local Network so you can access the DVR over the Internet using a static or dynamic IP address. One problem with a dynamic address is your internet service provider (ISP) changes this address from time to time. When it changes you need to re-configure your DVR with the new address. To do so you will have to get the new IP address. Although you can go to www.myipaddress.com to get the new IP address, you still have to make the changes manually.

So what are your choices? The first would be to obtain a static IP address from your ISP. This can get expensive due to setup fees and monthly rates. Fortunately there is an easier – and free – option. That is to use a dynamic domain name service (DDNS) to get a domain name that can be linked to your dynamic IP address. While there are multiple free DDNS services available, we recommend www.dyndns.com as the DVR has been already configured to accept account information from this service.

How DynDNS.com works:

1. You install the DynDNS® Updater software on your network
2. When your Internet Service Provider changes the your IP address, the DynDNS Updater detects that the network's IP address has changed
3. The DynDNS Updater sends the new IP address to DynDNS.com
4. The DynDNS.com update server receives the information, and assigns the new IP address to your Dynamic DNS hostname you created.

In addition to automatically keeping up with the changes in the address, you will now be able to enter a domain name rather than a string of digits when accessing the DVR in Internet Explorer.



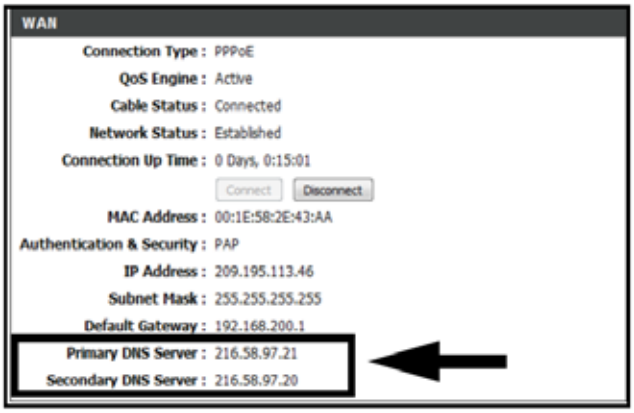
DynDNS.com Setup Screen

How to obtain your Domain Name from www.dyndns.com

1. Using a computer that is connected to the same router as the DVR, use Internet Explorer to go to www.dyndns.com
2. Decide whether you only need one domain name which is free or require multiple names for a fee.
3. Follow the instructions for completing the required information to register
4. You will receive a confirmation email with your new domain name. An example domain name might be adam@dyndns.com. You will need it to configure the DVR.

First obtain your Router DNS
You need to get your DNS manually from your router. You will need the Primary or Secondary DNS from your router for DDNS to function properly.
To obtain your Primary or Secondary DNS:

1. In your web browser, log in to your router using its Default Gateway address. NOTE: Refer to your router`s manual or software for login information. You can also get the Default Gateway on your PC by selecting Start>Run. Type CMD and press Enter. In the Command Prompt window type ipconfig and press Enter.
2. View its WAN settings. Write down the Primary or Secondary DNS address for use in the next step.



WAN Settings Example

Next configure DDNS settings in the DVR
From the Network Setup menu, enter Primary or Secondary DNS from the WAN settings of your router in the DNS field

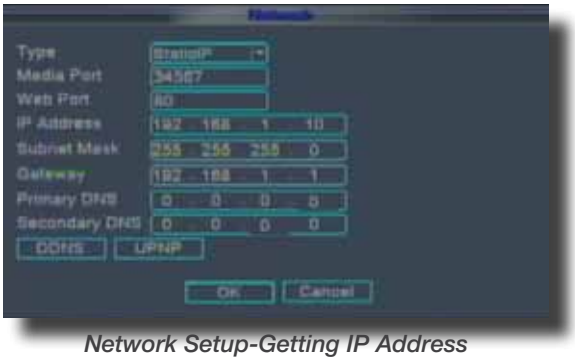
1. Click DDNS SETTINGS.
2. Under DDNS, select ON.
3. Under SERVICE, select DYNDNS if you obtained your domain name from DynDNS.com.
4. Under DOMAIN NAME, enter your DDNS domain name you received from the confirmation email. For example, if your domain name is adam@dyndns.com, you need to enter adam@dyndns.com, in the text field using the Virtual Keyboard.
5. Enter your DDNS user name and password in the respective fields.
6. Click APPLY. Click OK in the confirmation window.
7. Click EXIT. The system will prompt you that it must restart. Click OK.

DDNS Setup

Port Forwarding
Port Forwarding allows computers and devices outside of your network to communicate with the DVR. You will need to forward ports 80, 100 and 9000 from the attached router to the IP address of the DVR. Gather the make, model and IP address of the router. If you changed the default router login, then you will need to know the user name and password for that router. There are 3 Steps to follow:

Step 1: How to Determine the IP Address of the DVR
NOTE! The DVR and PC must be connected to the same router and both must be powered up before proceeding.

1. Select DHCP from the TYPE drop down box in the NETWORK SETUP Menu. You should see the message "Getting IP..." The router will assign an IP address.
2. Restart the DVR.
3. Once the DVR has restarted, reopen the Network Setup window and the IP address of the DVR will now be listed. This is the address to which you will forward ports 80 and 9000. If you plan to access your DVR via a smartphone, you will need to forward port 100 as well.



Network Setup-Getting IP Address

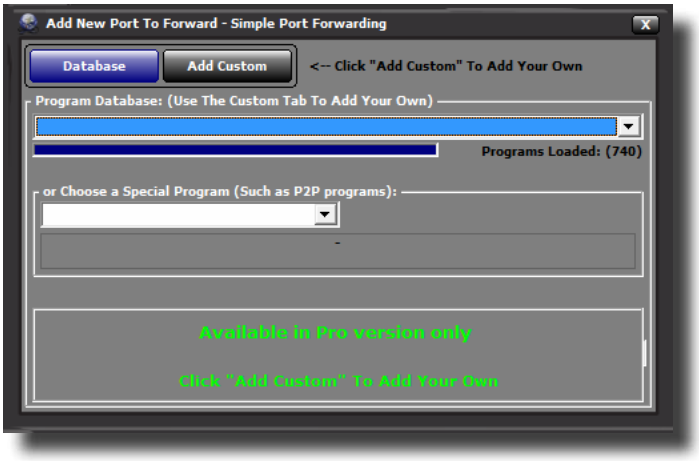
Step 2: Download and Install a simple port forwarding program

1. Download the FREE Simple Port Forwarding program from: http://www.simpleportforwarding.com/download
2. Click on "Direct Download" and Save the file to your hard drive.

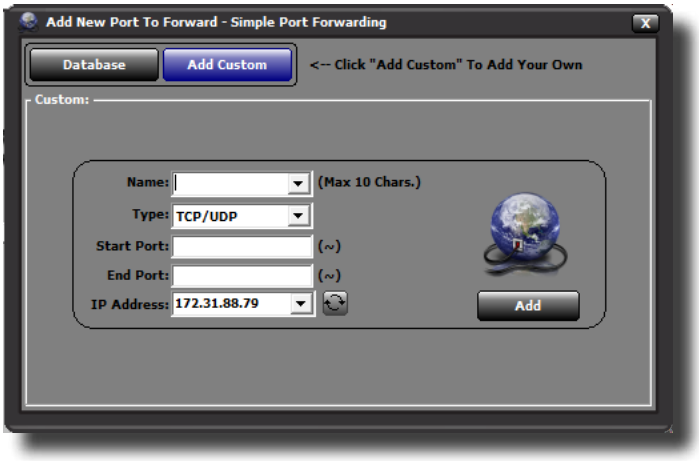
Simple Port Forwarding Download from Website

3. Install the program and launch it.
4. Once Simple Port Forwarding has launched, select your router from the list. The default Router IP and Login information will automatically come up. If you have previously changed the login information, then you will have to enter it manually. Click on "+" at the bottom to open the window allowing you to set your ports. (See *"Simple Port Forwarding Initial Screen")*
5. Select "Add Custom" button. Enter your information:
   - Name: (You can name your DVR if you wish)
   - Type: TCP
   - Start Port: 80
   - End Port:80
   - IP Address: IP of DVR obtained in Step 1.
6. Click on ADD
7. Repeat for port 9000. If you are adding a Smartphone then also repeat for port 100.

Simple Port Forwarding Initial Screen


Add New Port To Forward - Simple Port Forwarding
Database
Add Custom
<-- Click "Add Custom" To Add Your Own
Program Database: (Use The Custom Tab To Add Your Own)
Programs Loaded: (740)
or Choose a Special Program (Such as P2P programs):
Available in Pro version only
Click "Add Custom" To Add Your Own

Select "Add Custom" Button



"Add Custom" Data Entry Screen

8. You will now be returned to the main window of the program. The ports you added will now show on the list. Click on "Update Router" at the bottom of the screen.
9. The "Updating is in progress" message now shows. Wait until "Done" is displayed. If for some reason, a port or ports that you forwarded are not listed in the Router or if you see a message in the Scripts list stating that the port already exists, then you will need to change the Port 80 to 85 in the DVR and start over again. Once you receive the DONE message that the ports have been successfully forwarded, test if the ports are working. See next step.

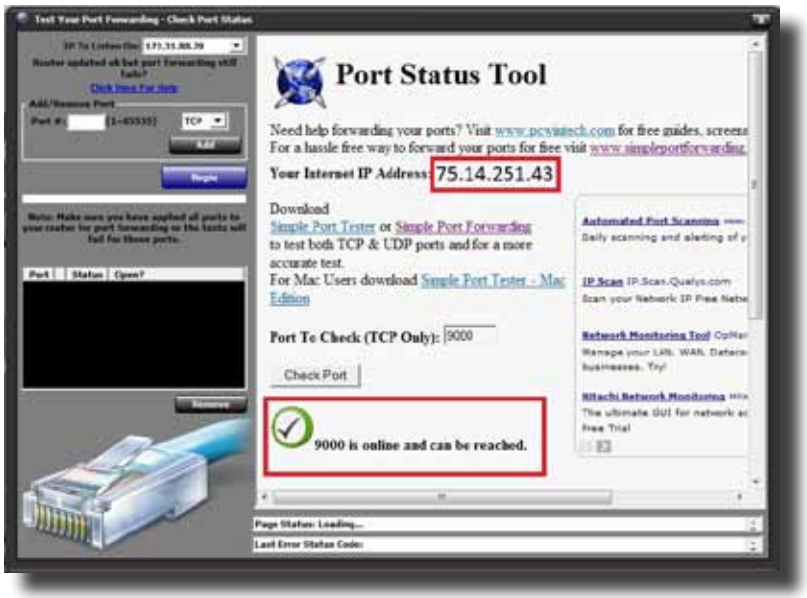
Step 3: Test Port Forwarding

1. In the Checklist Screen, test if the ports are working by clicking on the “Do it now” button in item “(7) Test that the ports now work.”. (See “*Checklist Screen” below).*
2. You should receive a message in the right side of the “*Test Your Port Screen“* screen, “Port Status Tool” stating that the port is online and can be reached, then you have set it up correctly. You will also receive an IP Address.
3. To connect to your DVR from the Internet, you will need to put the Internet IP address you received in the message into the browser or access program window. If you had to change your port from Port 80, then you need to put that port at the end of the address preceded by a colon (“:”). Example: if you used port 85, you will need to enter: http://75.14.251.43:85

Check List
(1) Update Router List
Do it now
(2) Select Your Router & Set Login Info
Do it now
Router not listed?
(3) Set your Local IP to a Static IP (Optional, not always needed)
Help
(4) Choose which ports you need to forward.
Do it now
(5) Update The Router
Do it now
(6) Add ports to the Windows Firewall
(7) Test that the ports now work.
Do it now
Port test failed?
Click Here For Help
Close

Checklist Screen

Test Your Port Screen

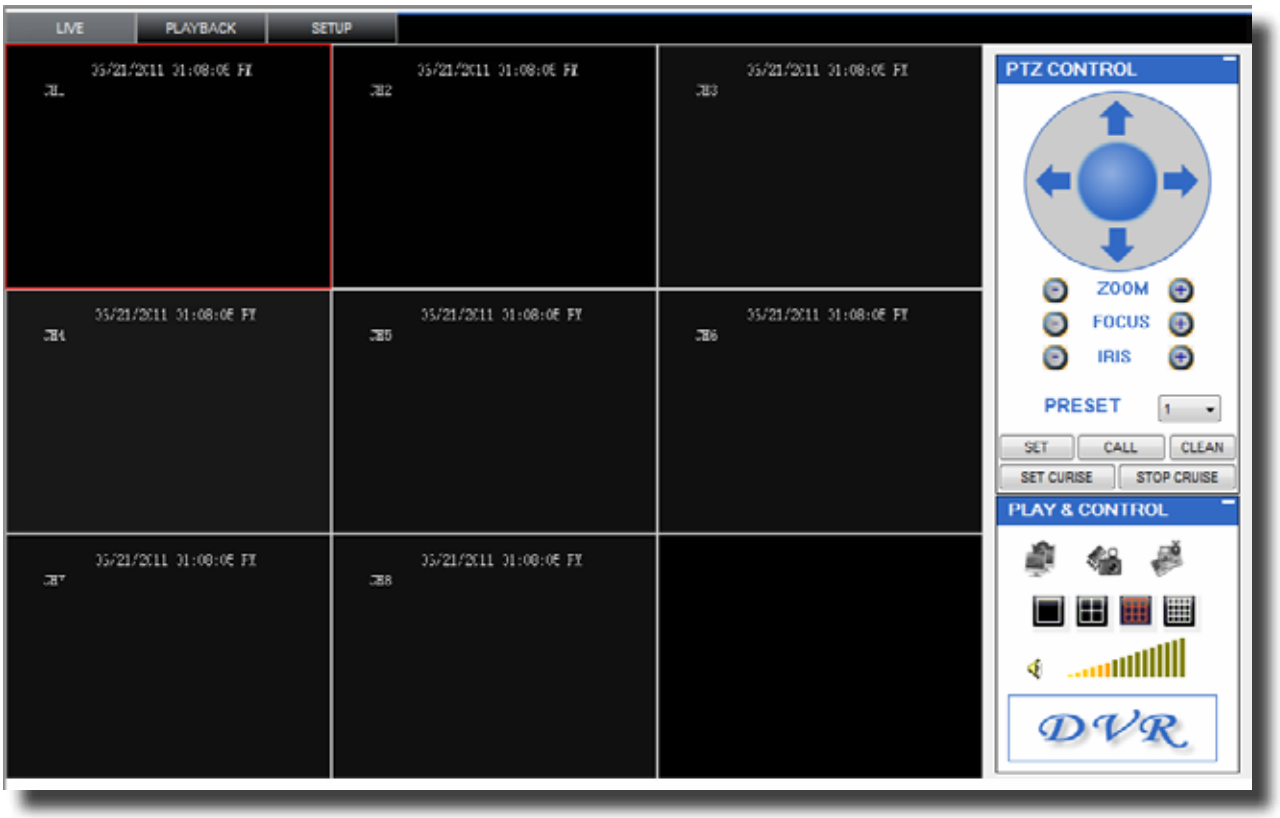

Test Your Port Forwarding - Check Port Status
Port Status Tool
Need help forwarding your ports? Visit www.pcwintech.com for free guides, screens
For a hassle free way to forward your ports for free visit www.simpleportforwarding
Your Internet IP Address: 75.14.251.43
Download
Simple Port Tester or Simple Port Forwarding
to test both TCP & UDP ports and for a more
accurate test.
For Mac Users download Simple Port Tester - Mac
Edition
Port To Check (TCP Only): 9000
Check Port
9000 is online and can be reached.
Automated Port Scanning
IP Scan IP.Scan.Qualys.com
Network Monitoring Tool
Hitachi Network Monitoring
Free Trial
Page Status: Loading...
Last Error Status Code:

Test Your Port Screen with Results

REMOTE SURVEILLANCE

Remote Surveillance using Internet Explorer 8:

The DVR features built-in browser-based software that allows you to access your system remotely over your local area network (LAN) or over the Internet using Internet Explorer®. Once you have configured the network settings on the DVR to match those on your router and forwarded the ports needed by the DVR to enable remote access over the Internet, you will be ready to remotely view your cameras using a webcam program based on an ActiveX control. For this to work, you will have to enable the ActiveX control options that are built into Internet Explorer. You will also need to check your "User Account Control" setting. It is strongly suggested that you be running the latest version of Internet Explorer (currently IE8).



Configuring Windows "User Account Control":

Check the "User Account Control" setting in Windows Vista or Windows 7 to be sure the setting is configured as shown below. If not you might receive an error message informing of a codec that is missing or not installed.

Windows Vista

1. Open the Control Panel
2. Select "User Accounts and Family Safety"
3. Select "Add or Remove User Account"
4. Select user account to change
5. Select Turn User Account Control on or off". Note: Depending on your version of Vista, this screen might be accessible on the bottom of the "Select User Account to Change" screen under "Additional things you can do" > "Go to main user account page".
6. Uncheck the box next to "Use User Account Control (UAC) to help protect your computer."
7. You will need to re-start your computer for the change to take effect.

Windows 7

1. Open the Control Panel
2. Select "User Accounts"
3. Select "Change User Account Control Settings"
4. In the "Choose to be notified about changes to your computer" screen, move the slider to the lowest setting "Never notify".

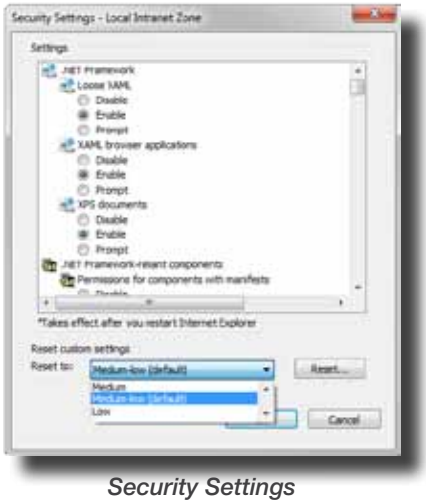
Configuring ActiveX Control in Internet Explorer 8:

1. Open Internet Explorer 8
2. Click on Tools
3. Select Internet Options in the pull-down menu
4. Click on the Security Tab
5. Select Trusted Sites
6. Click on the Sites button
7. Uncheck the "Require server verification (https:) for all sites in this zone" button.
8. Type the DVR's IP address (obtained during Network Setup) or DDNS domain name (obtained through DynDNS.com setup) into the "Add this website to the zone:" box.
9. Click the Add button
10. Close the window.
11. Back in the "Security Tab" screen, click the "Custom level…"button.
12. Pull down the "Reset to:" menu button and select "Low"
13. Click the "Reset..." button
14. Click "Yes" when asked, "Are you sure you want to change the setting for this zone?"
15. Click OK
16. Click Apply
17. Click OK
18. Close Internet Explorer. You are now ready to access the DVR using Internet Explorer 8.

Trusted sites
You can add and remove websites from this zone. All websites in this zone will use the zone's security settings.
Add this website to the zone:
http://intranet
Add
Websites:
http://172.31.88.1
Remove
Require server verification (https:) for all sites in this zone
Close

Trusted Sites

Internet Options-Security Screen



Security Settings

Using Remote Surveillance:

With your system connected to your local area network, you can now log in to your system using Internet Explorer.

Setup Required Prior to Remote Access

NOTE: Your system must be connected to your LAN or WAN, Windows and Internet Explorer must be configured as described in the previous sections *Configuring Windows "User Account Control"* and *Configuring Active X Control in Internet Explorer 8* and the DVR settings must have been setup properly as described in the ***Network Setup for Remote Access*** section before attempting remote access.

The software from the DVR will install the first time you access the DVR through Internet Explorer and will allow you to operate the network remotely. The DVR supports access over LAN and WAN, also supports IP and domain name access.

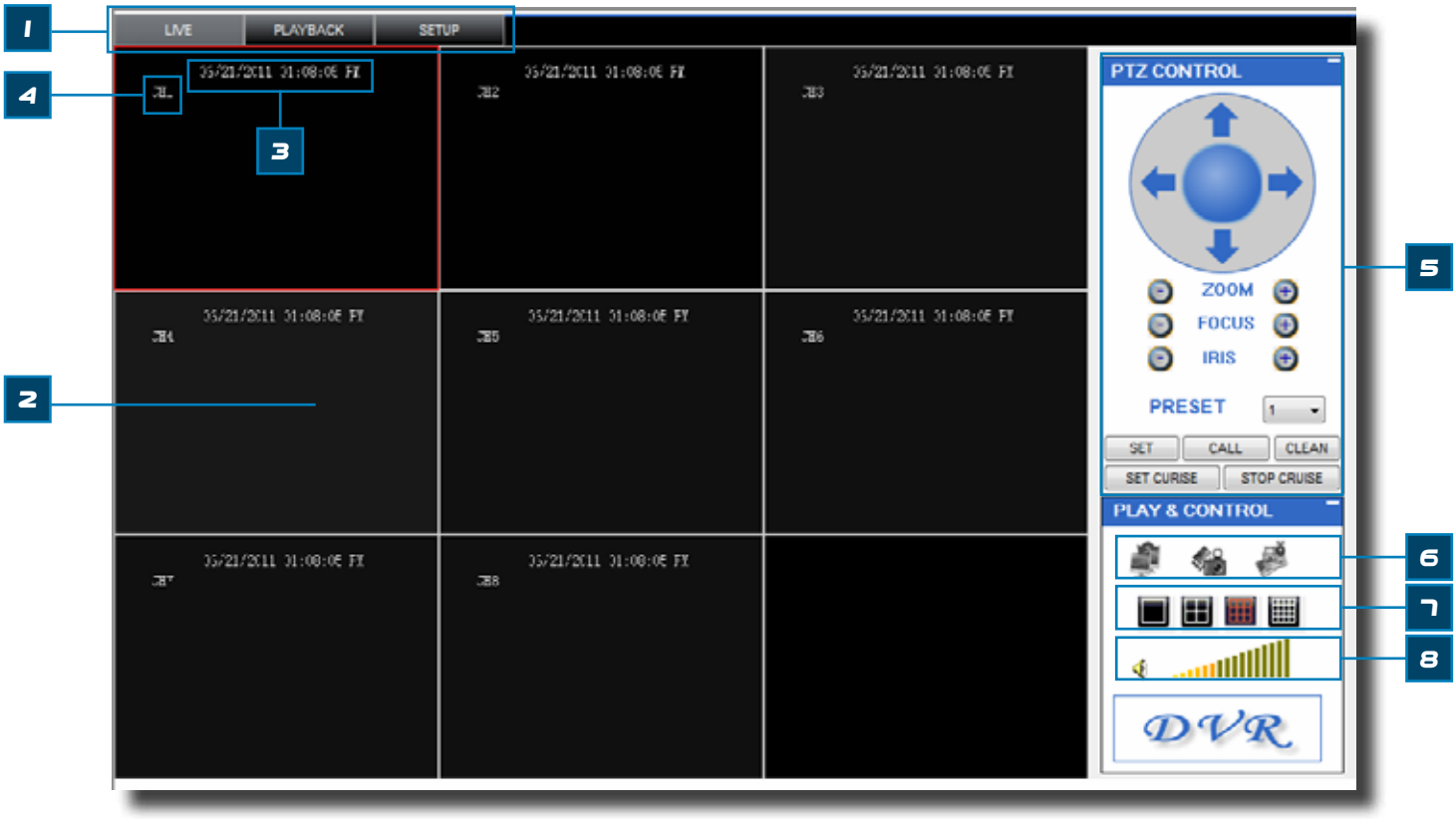
Logging Into Your System Remotely

With your IP address, you can now log in to your system over your local or wide area network.

1. Open Internet Explorer. In the address bar, enter the IP address of your system (i.e. 192.168.3.97).
2. You must install the ActiveX® in order to access your system. Click the attention bar at the top of the main page and select Install ActiveX Control. DVR Net viewer will reset.
3. In the warning box click Install. The login page appears. Leave the password field blank (default). NOTE: If you have enabled passwords on your system, enter your USER or ADMIN password. However, only the ADMIN can change settings and options on the system.
4. Select LAN or INTERNET from the drop-down menu and click LOGIN.

Remote Surveillance-Login Screen

Remote Surveillance Main Screen:
Upon login, the Remote Surveillance main screen appears in your browser.



ITEM	FUNCTION	DESCRIPTION
1	Modes	Click LIVE, PLAYBACK, and SETUP
2	Main Screen	Main display screen for live viewing and playback
3	Time Stamp	Time stamp appears on each channel
4	Channel	Channel number appears in the top left corner
5	PTZ Control	PTZ control for any connected PTZ cameras (not included).
6	Functions	Click the icons to show/hide channels, take screen captures, and record
7	Display Modes	Click the icons to view channels in single-channel full-screen, quad, and split-screen configurations
8	Volume/Mute	Select a channel (outlined in red) and then click the bars to increase/decrease volume; click the icon to mute/ unmute volume.*

**Note: Audio capable cameras (not included) are required for audio recording on the system.*

Live Viewing Tab:

By default, Remote Surveillance opens in Live Viewing mode (split-screen).
To use Live Viewing:

1. Click LIVE at the top of the main screen.
2. Click the display mode icons to view the main screen in single-channel, quad, or split-screen configurations. You can also double-click a channel at any time to view it in single-channel.
3. Click to show or hide all the channel windows.
4. Click to start/stop manual recording to your PC on ALL channels. For more details see RECORDING.
5. Select a channel (outlined in red) and then click the audio bars to increase or decrease listen-in volume. Click the icon to mute/unmute.

Live Viewing Talk Function
NOTE: The Talk function is not supported.

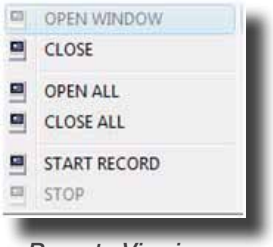
Recording
NOTE: You will record video to your PC regardless of the recording mode on the system itself. By default, recorded files are saved in C:\DVR\[ip_address]\Record.

Recording

You can record video directly to your PC using the remote surveillance software.
To record video to your PC, from Live viewing, click to start/stop manual recording to your PC on ALL channels

Quick Access Menu

Right-click any channel to open the sub-menu.
The sub-menu contains the following options:



Remote Viewing- Quick Access Menu

PTZ Control

You must have a PTZ camera (not included) connected to the system in order to use the PTZ controls.
To control a PTZ camera:

1. Select the channel of the connected PTZ camera(s).
2. Click the navigation arrows to pan and tilt the camera.
3. Click + /- to control zoom, focus, and iris.
4. Enter presets.
5. Click SETTING, HAND, and CLEAR to further control presets.

Remote Viewing - PTZ Control

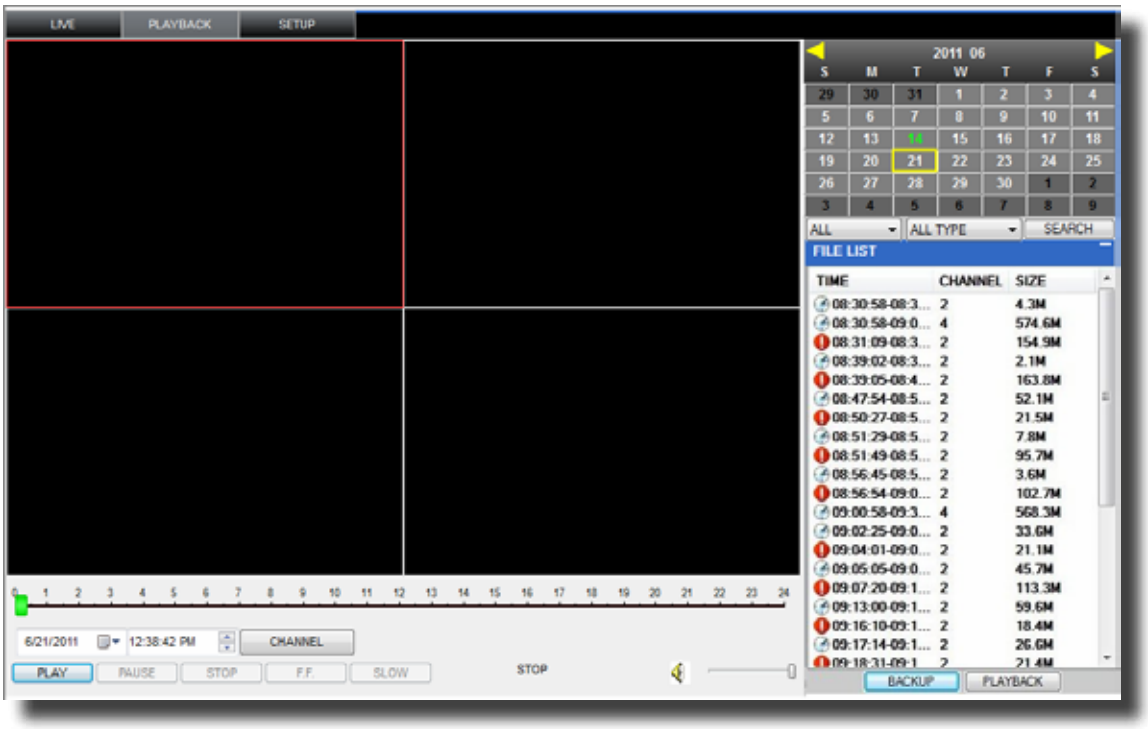
Screen Captures

Use the remote surveillance software to take a snapshot of the channels on the main display screen. Screen Captures can be useful for your own records, or may be needed by authorities in case of a security incident.
To take a screen capture:

1. From Live Viewing, select the channel you want to capture. The selected channel will be highlighted in a red frame.
2. Click .
3. Click OK in the confirmation window. Screen captures are saved as BMP files to the default save location (C:\DVR\...).

Playback Tab

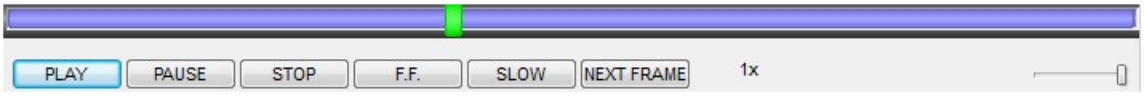
Use the Replay menu to search and playback recorded video on your system.



Remote Viewing-Playback Screen

To use the replay menu:

1. Click REPLAY at the top of the main screen. The main screen will be grey.
2. Click REFRESH below the calendar to view the recorded files for the current month. NOTE: Normal recording is indicated by a clock icon; alarm recording (alarm, loss, and motion events) are indicated by an exclamation mark icon.
3. Double-click a file from the File List to playback the file in the main screen. The icon in the file list changes to "▶".Control playback using the buttons at the bottom of the main screen.



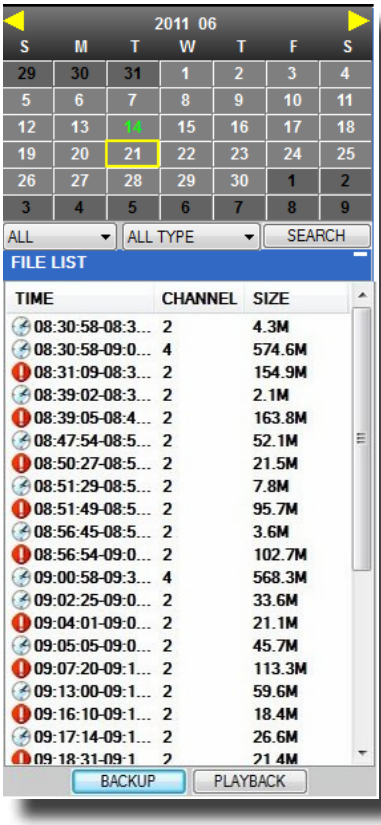
Remote Viewing-Progress Bar

The purple bar indicates the download progress. The green marker indicates playback progress. You can click and drag the playback marker (will turn from green to orange) to advance or rewind playback as needed. Click Play, Pause, Stop, Fast Forward, Slow and Next Frame to perform those functions.

Search

Use the calendar and drop-down menus to search for recorded video on your system.

1. Click < > to change the month on the calendar. Dates with recorded video data will appear in bold.
2. Click the date. Recorded video files will populate the File List.
3. From the Channel drop-down menu, select a specific channel or select ALL CHANNEL and then click SEARCH.
4. From the Type drop-down menu, select COMMON (normal recording), ALARM, or ALL TYPE and then click SEARCH.
5. Double-click the file from the File List to playback the file in the main screen.



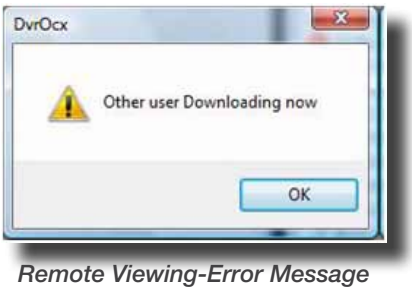
Remote Viewing-Search Calendar

Remote Backup

You can backup recorded video files from your system to your PC using the Replay menu in the remote surveillance software.

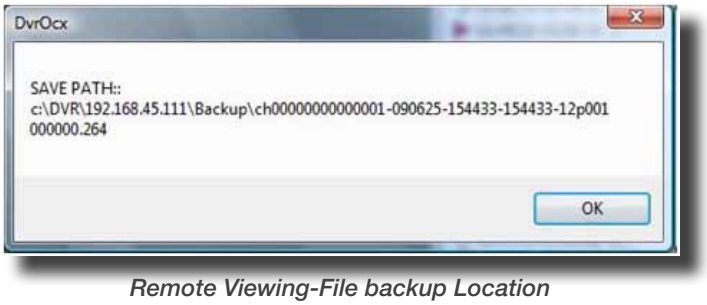
To backup files remotely:

1. Click PLAYBACK at the top of the main screen.
2. Double-click a file from the File List to begin playback.
3. Click BACKUP. Backup begins to C:/DVR/[ip_address]/Backup NOTE: If you playback a file, you must wait for the file to load before backing it up otherwise you may receive an error message



Remote Viewing-Error Message

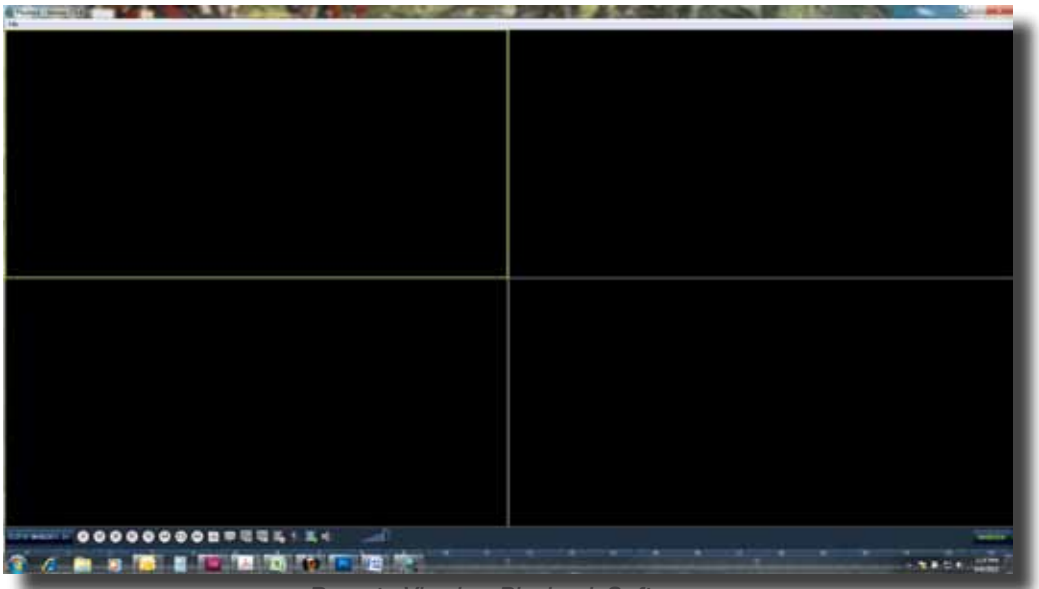
4. When file backup is complete, click OK in the confirmation window. The confirmation window show the save path of the backup file. NOTE: Backup files are saved as .264 files.



Remote Viewing-File backup Location

Player Software

NOTE: Use the Player Software included on the software CD to playback backed up video.



Remote Viewing-Playback Software

Setup Tab

Use the SETUP tab to configure the settings of your system from a remote location. NOTE: If the Main Menu is open on the system, you will not be able to make changes to the system from the remote location.

To open remote setup:

Click SETUP at the top of the main screen. The Remote Setup menu features the following tabbed options:

- RECORD
- ALARM
- PTZ
- NETWORK
- SETTING
- MAINTENANCE
- HOST INFO

RECORD

You can check and change the parameter settings as configured in the DVR.

Remote Setup - Record Screen

ALARM

You can check and change the parameter settings as configured in the DVR.

Remote Setup - Alarm Screen

PTZ

You can check and change the parameter settings as configured in the DVR.

Remote Setup - PTZ Screen

NETWORK

You can check and change the parameter settings as configured in the DVR.

Remote Setup - Network Screen

SETTING
You can check and change the parameter settings as configured in the DVR

- BANDWIDTH: Set the bandwidth in kbps (128k, 192k, 256k, 384k, 512k, 1024k) that you want to allocate for traffic based on internet bandwidth available. This bandwidth does not include audio.
- FILE SAVE PATH: The path where you want to save captured picture and recording video.

MAINTENANCE
You can check and change the parameter settings as configured in the DVR along with rebooting the system and upgrading firmware.

- TELECONTROL: Remote reboot DVR or format HDD.
- REMOTE UPGRADE: Remote upgrade DVR firmware.

Remote Setup - Setting Screen

Remote Setup - Maintenance Screen

HOST INFO
This interface allows you to view system information such as HDD status, remain record time, firmware version and MAC Address. All the information is for viewing only and cannot be changed remotely.

Remote Setup - Host Info Screen

MOBILE PHONE

Mobile Setup

Mobile allows you to send alerts to your cellular phone running Windows Mobile Pro (6.0 or later), Symbian (S60 3rd or later), Android, Blackberry (Curve 8900, Bold 9700, Tour 9630), or iPhone on 3G networks. The instructions on how to install and use the software for the different phone operating systems are shown below. This installation CD includes the software needed for Windows Mobile Pro, Symbian, Android, and Blackberry. To use with an iPhone you need to download the software from the iTunes app store.

Mobile Setup

For all phones configure MOBILE settings as follows:

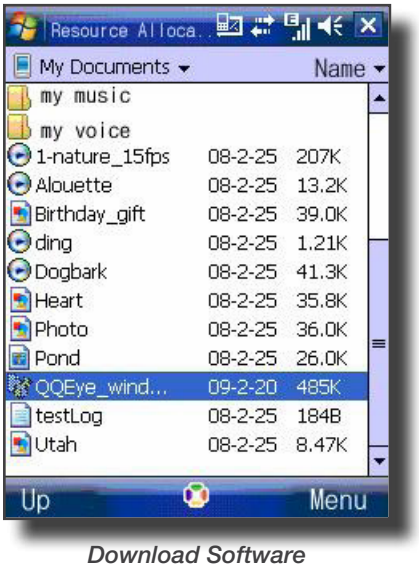
- From the MAIN Menu click ADVANCED then MOBILE.
- Under MOBILE NETWORK, select 3G, 2.75G, or 2.5G. NOTE: Contact your cellular provider if you are unsure about the network of your cellular phone.
- Under MOBILE PORT, enter your mobile port number. Note: this port can't be the same with any other port and different DVR's should have different sever ports.
- Click APPLY. Click OK in the confirmation window.
- Click EXIT in all menus until all windows are closed.

Mobile Access

NOTE! Before you can use Mobile Access you need to setup the network configuration on the DVR and forward port 100 as described in the "Port Forwarding" section of this manual.

Windows Mobile Pro (6.0 or later) OS Phones

Step 1: Program Download
Copy the installation program "Meyesetup.CAB" from the Installation CD to the "My Documents" folder on your mobile phone.

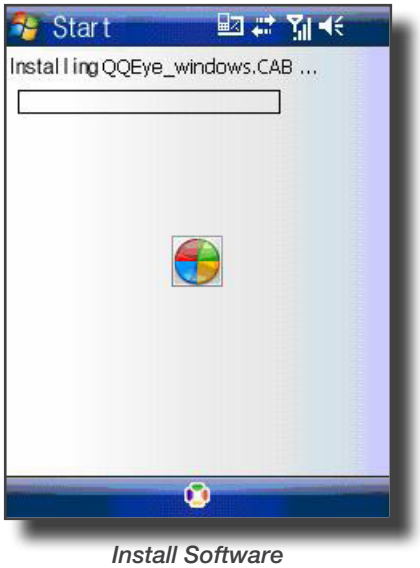


Download Software

Step 2: Select Install Path
Click the program and start to install it, just select default path when it ask you to select install path.

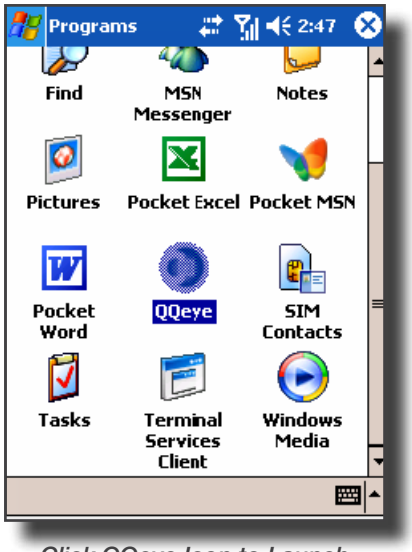
Select Install Path

Step 3: Install Program
Click the Install button to begin installation.



Install Software

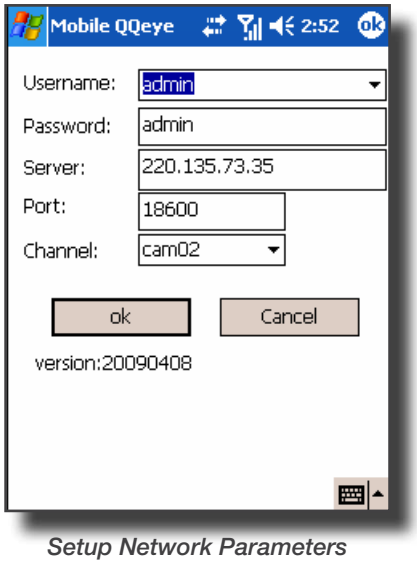
Step 4: Launch Program
After installed, click the QQeye icon to run the program.



Click QQeye Icon to Launch

Main Screen

Step 5: Network Parameters
When you login for the first time, go to the "Settings" tab and configure the network parameters first. These should be the same as on the DVR.



Setup Network Parameters

Step 6: Main Interface and Controls

- Channel: Select the channel you want to monitor. When you select a channel, it will connect to DVR automatically.
- Connect: Connects and Disconnects to the DVR.
- Settings: You will need to enter the Settings menu when you first access this program in order to configure the phone to access the DVR.
- Snapshot default save path is: Program\QQeye\photo.
- Button Definitions: Note, you must have a PTZ camera(s) connected for these functions to operate.

ITEM	FUNCTION
1	PTZ Directional Controls
2	PTZ Zoom
3	PTZ Focus
4	PTZ Iris Controls
5	Snapshot

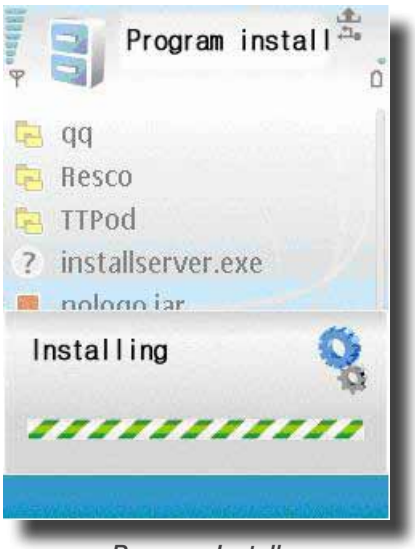
Symbian (S60 3rd or later) OS Phones

Your DVR can be configured to be viewed remotely on your smartphone running the Symbian OS using the MEye software.

Step 1: Program Download
Copy the install program MEye.3rd.sisx for third edition or MEye.5th.sisx for fifth edition appropriate to your version of the Symbian operating system from the CD included with your DVR to your mobile phone. The default save path is memory card.

Download Software

Step 2: Program Install
Click the program and install it.

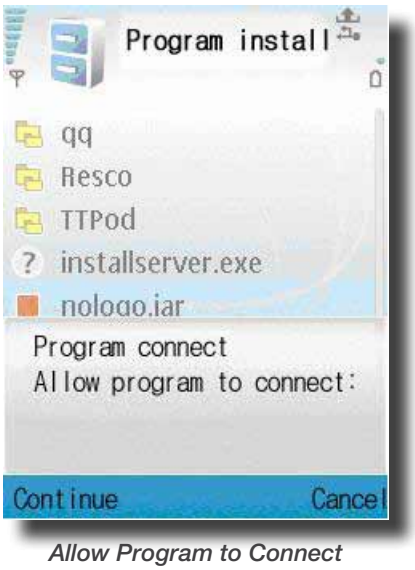


Program Install

Step 3: Install Location
Choose to install the program to the phone's internal memory or onto an SD card.

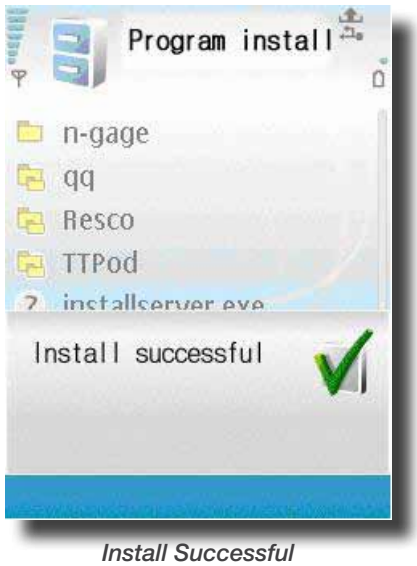
Confirm Install Location

Step 4: Internet Connection
Confirm the program can connect to the internet.



Allow Program to Connect

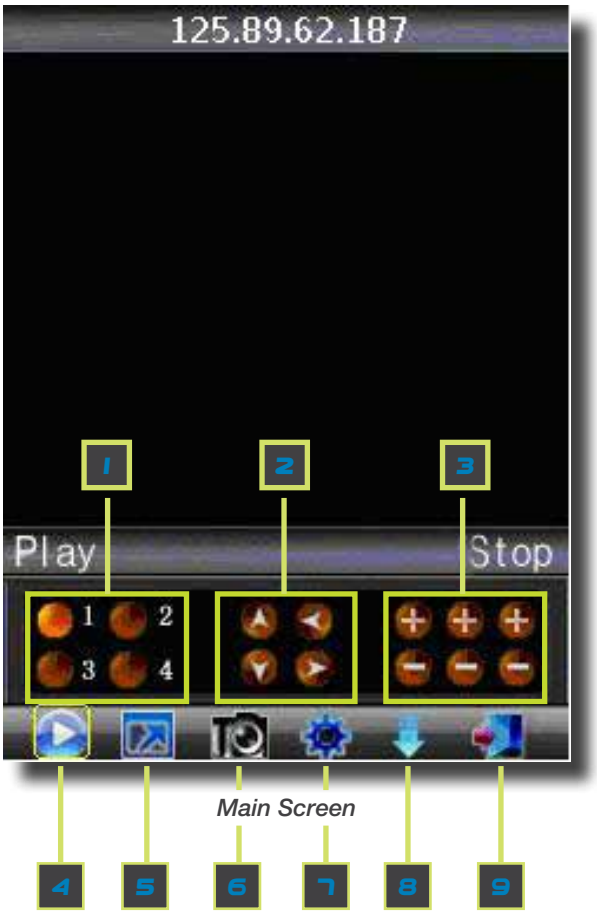
Step 5: Install Successful
The message, "Install successful" will display after the program is finished installing.



Install Successful

Step 6: Launch Program
After installed, click the QQeye icon to run the program.

Launch QQeye Program



Main Screen

Step 7: Main Interface and Controls

- Snapshot default save path is: C:\Data\Images.
- Button Definitions: Note, you must have a PTZ camera(s) connected for PTZ functions to operate.
- The "NextGroup" button switches the camera displays in groups of 4, i.e. 1-4; 5-8, etc. depending on how many channels your system can support and how many cameras you have connected.

ITEM	FUNCTION
1	Channel Selection
2	PTZ Directional Control
3	PTZ Zoom, Focus and Iris Controls
4	Play/Pause
5	Full/Normal Screen View
6	Snapshot
7	Settings
8	Next Channel Group
9	Exit

Next Group Screen

Step 8: Network Parameters

When you login for the first time, go to the "Settings" tab and configure the network parameters first. These should be the same as on the DVR.

Network Settings - Screen 1

Network Settings - Screen 2

Display Mode

Normal/Full Screen. Clicking the screen can switch the display mode between normal and full screen.

Display Mode

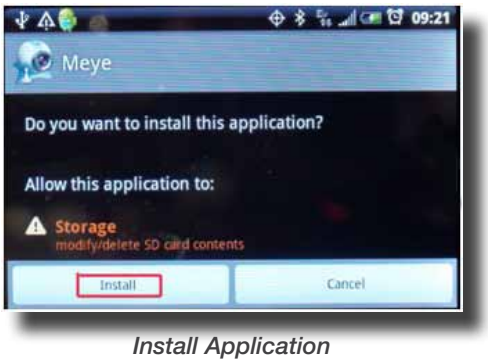
Android 1.5 Mobile OS Phones

Your DVR can be configured to be viewed remotely using a smartphone running the Android mobile OS using the MEye software.

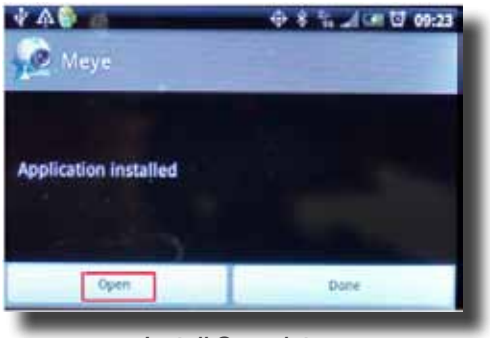
Step 1: Program Download
Copy the installation program "Meye.apk" from the Installation CD to your mobile phone. The default save path is My Documents.

Program Download

Step 2: Install Program
Go to your phone and install Meye by clicking on the Install button on the screen. Once installed, click on Open to launch the program.



Install Application

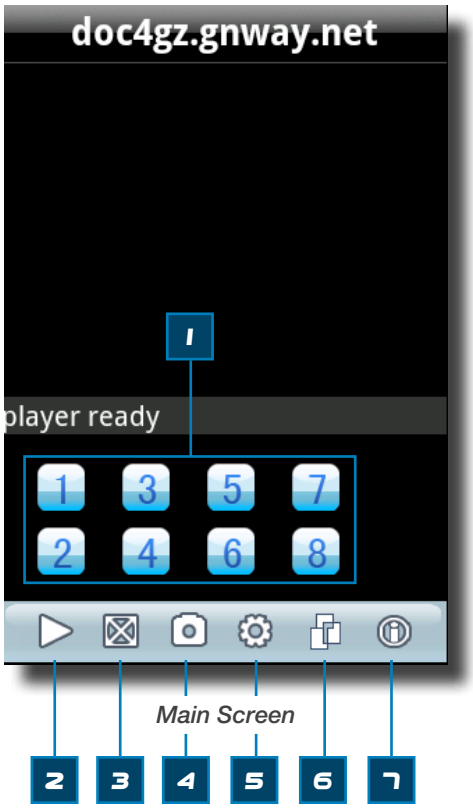


Install Complete

Step 3: Main Interface and Controls

- Snapshot default save path is phone's default gallery directory.
- Button Definitions:
- The "Next Channel Group" button switches the camera displays in groups of 8, i.e. 1-8; 9-16, etc. depending on how many channels your system can support and how many cameras you have connected.

ITEM	FUNCTION
1	Channel Buttons
2	Start/Stop
3	Normal View/Magnified View
4	Snapshot
5	Settings
6	Next Channel Group
7	Program Information

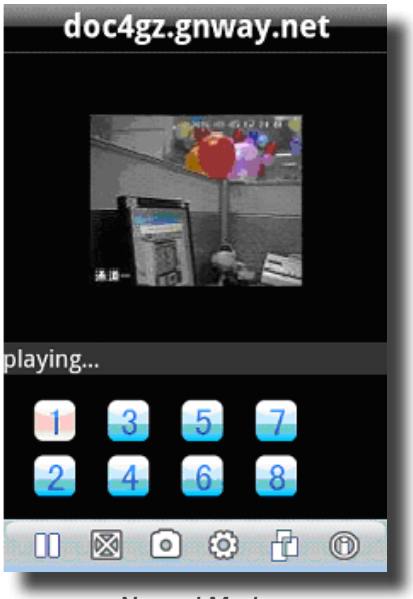


Main Screen

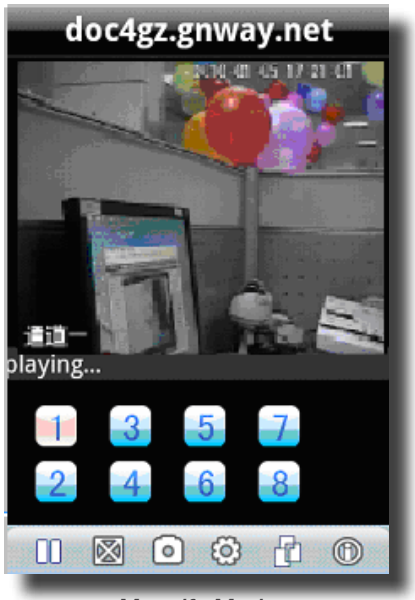
Step 4: Network Parameters
When you login for the first time, go to the “Settings” tab and configure the network parameters first. These should be the same as on the DVR.

Settings Screen

View Modes
You can switch between normal mode and magnify mode. When you revolve your phone, it automatically switches to full screen mode.



Normal Mode



Magnify Mode

Full Screen Mode

Apple iPhone on 3G Networks

Your DVR can be configured to be viewed remotely on your iPhone or iPad using the MEye software. System requirements: iPhone or iPad 2.0 or greater with at least 800KB of free space. iTunes is optional.

1. Open your iPhone and click App Store.
2. Under the search bar type “Meye” and click search button. Download the Mobile Viewing Application for free, the file name is Meye.
3. Click the Meye icon, the application will install on your iPhone.

iPhone App screen

Step 4: Network Parameters

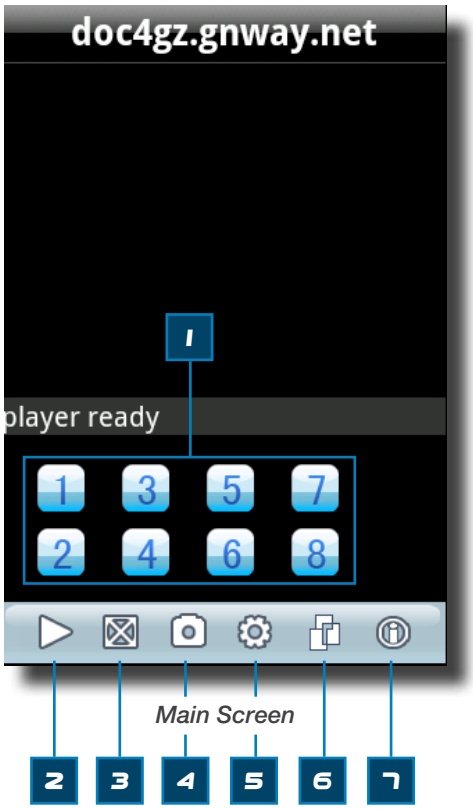
When you login for the first time, go to the “Settings” tab and configure the network parameters first. These should be the same as on the DVR.

Settings Screen

Step 5: Main Interface and Controls

- Snapshot default save path is phone’s default gallery directory.
- Button Definitions:
- The “Next Channel Group” button switches the camera displays in groups of 8, i.e. 1-8; 9-16, etc. depending on how many channels your system can support and how many cameras you have connected.

ITEM	FUNCTION
1	Channel Buttons
2	Start/Stop
3	Normal View/Magnified View
4	Snapshot
5	Settings
6	Next Channel Group
7	Program Information



Blackberry OS 5.0 Phones (Curve 8900, Bold 9700, Tour 9630)

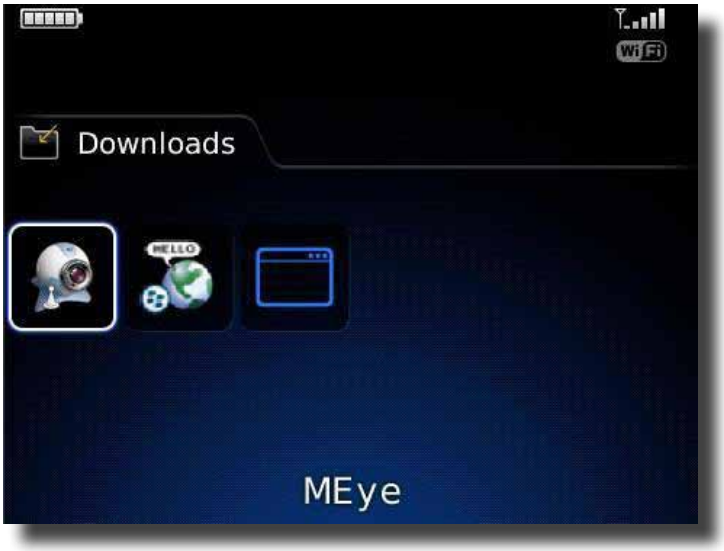
Your DVR can be configured to be viewed remotely using a smartphone running the BlackBerry mobile OS version 5.0 using the MEye software.

1. Connect the BlackBerry to your PC via USB Cable.
2. Launch BlackBerry Desktop Manager and run select Import Files.
3. Locate MEye.cod and MEye.alx (it may be easier to copy the two files to your hard drive) and click on OPEN.
4. The files will be imported to your phone.
5. Desktop Manager will show that MEye is now installed on your phone.

Blackberry Desktop Manager Install Menu

Step 6: Icon

Remove the USB Cable and go the Download Menu on your phone to launch the application

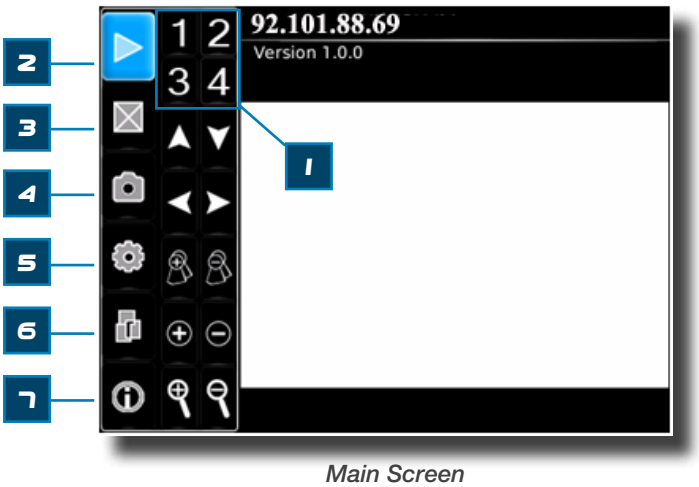


Blackberry Download Menu

Step 7: Main Interface and Controls

- Snapshot default save path is phone's default gallery directory.
- Button Definitions:
- The "Next Channel Group" button switches the camera displays in groups of 4, i.e. 1-4; 5-8, etc. depending on how many channels your system can support and how many cameras you have connected. The icons which are not defined are non-functional.

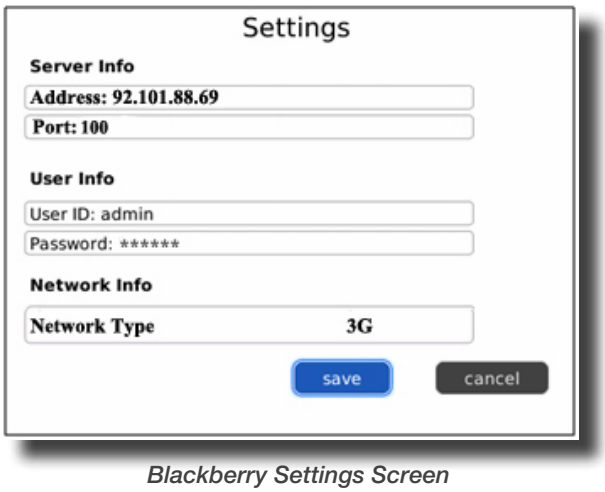
ITEM	FUNCTION
1	Channel Buttons
2	Start/Stop
3	Normal View/Magnified View
4	Snapshot
5	Settings
6	Next Channel Group
7	Program Information



Main Screen

Step 8: Network Parameters

When you login for the first time, go to the "Settings" tab and configure the network parameters first. These should be the same as on the DVR.



Blackberry Settings Screen

Main Screen - Video Display Mode

You can switch between full screen and regular screen mode.

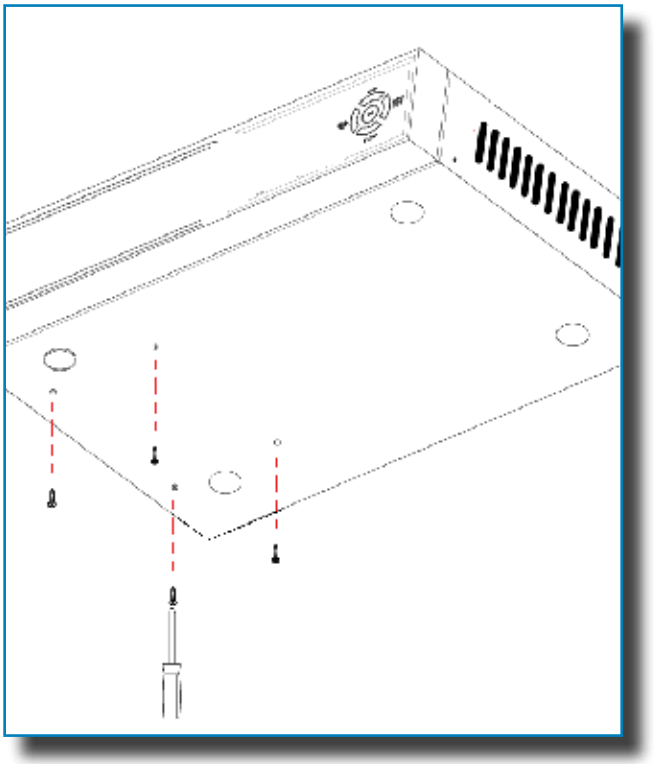
Blackberry Operational Screen Mode

HARD DRIVE REMOVAL AND INSTALLATION

HDD Installation

To replace the hard drive in the DVR:

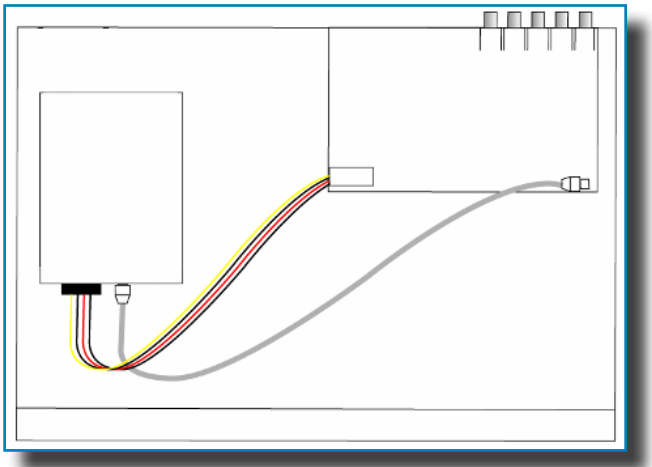
1. CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK. UNPLUG ALL POWER SOURCES, INCLUDING CAMERAS FROM THE DVR BEFORE REMOVING COVER. FAILURE TO DO SO CAN RESULT IN DAMAGE TO THE DVR OR ITS COMPONENTS AS WELL AS INJURY OR DEATH
1. Remove screws securing the cover of the DVR and remove cover.
2. Disconnect the hard drive power and data cables.
3. Remove old hard drive and replace with the new one.
4. Re-install the screws securing the hard drive to the bottom of the DVR.
5. Re-connect the hard drive power and data cables.
6. Replace the cover and screws. Note: Format hard drive per instructions in HDD MANAGEMENT section.



Hard Drive Remove/Install Screws from Below

Caution!
When working with electrostatic sensitive devices such as hard disk or DVR unit, make sure you use a static-free workstation. Any electrostatic energy coming in contact with the hard disk or DVR can damage it permanently.

Hard Drive Format
NOTE: A new hard drive must be formatted after installation. Format per instructions in the HDD MANAGEMENT section of this manual.



Hard Drive - Connected to Circuit Board

CAUTION!

RISK OF ELECTRIC SHOCK

CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK. UNPLUG ALL POWER SOURCES, INCLUDING CAMERAS FROM THE DVR BEFORE REMOVING COVER. FAILURE TO DO SO CAN RESULT IN DAMAGE TO THE DVR OR ITS COMPONENTS AS WELL AS INJURY OR DEATH.

The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of un-insulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock.

The exclamation point within an equilateral triangle, is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

TECHNICAL SPECIFICATIONS

ITEM	DEVICE PARAMETER	SPECIFICATION
SYSTEM	Language	English/ Chinese
	GUI	16 Bit Graphic menu (OSD Menu)
	Password	User password, Administrator password
VIDEO	Video in	8ch composite video input 1.0Vp-p, impedance 75Ω, BNC
	Video out	1 VGA, 1 BNC (CVBS)
	Video display	8-channel: 1/4/9 channel
	Video standard	PAL, 25 f/s, CCIR 625line, 50 scene NTSC, 30 f/s, CCIR 525 line, 60 scene
AUDIO	Audio input	8-ch audio input, impedance 600Ω, RCA
	Audio output	1-ch audio output, impedance 600Ω, RCA
	Basic electricity output	Linearity electricity
	Record style	Audio video recorded simultaneously
	Audio compression	ADPCM
PICTURE PROCESSING AND STORAGE	Picture compression	H.264
	Picture resolution	CIF/HD1/D1
	Audio style	ADPCM
	Video code rate	CIF: 384~768 Kbps HD1: 512~1024 Kbps D1: 512~1024 Kbps
	Audio code rate	32 KB/s
	Data storage	One 1 TB SATA HDD included, up to 2 TB capable
ALARM	Alarm input	8 alarm input
	Alarm output	1 alarm output
CONNECTOR	Serial interface	Supports 1 RS232
	PTZ interface	Supports PELCO-D, PELCO-P
	Mouse	Mouse USB 1.1
	Data	USB 2.0
	Network interface	RJ45, 10M/100M
VGA	VGA output	Supports 800 x 600, 1024 x 768, 1280 x 1024, 1366 x 768, 1440 x 900 resolution
SOFTWARE UPGRADE	USB	Supports USB firmware upgrade
OTHER	Voltage input	AC:110~240V, DC 12V
	Power Consumption	6W without HDD
	Working temperature	14 °F to 122 °F (-10 °C to 50°C)
	Video impedance input	75Ω each channel
	Video output	1Vp-p CVBS signal

FAQ'S

If your problem is not listed below, please call our toll-free number for more support. Tech Services: 800-323-9005.

Question: Why does DVR not work after starting? Why did the DVR stop working?
Answer:
- Check that the power adapter is plugged into the DVR properly
- Check the power source and all power cord connections are properly connected
- Make sure the power on-off switch on the back of the DVR unit is on

Question: Why does the DVR reboot automatically? Or stop for several minutes after starting?
Answer:
- Check the supply voltage to be sure it is stable
- Bad track on hard drive or the hard drive is bad
- Instability of the front-end video signal
- High temperature, too much dust, bad DVR operating environment

Question: Why is there no video output on single, multi or all channels?
Answer:
- Check if the camera adaptor is properly connected
- Check the cable for connecting video input/output in the back panel of DVR
- Insert the video source directly into the display device and check if they are causing the problem.
- Check the brightness of the picture and bring it back to its original default setting
- No video input signal or too weak

Question: Why can't the DVR record after startup and why is there an "H" showing on the screen?
Answer:
- Make sure power adaptor is DC 12V
- Make sure hard drive is formatted
- Check the power and data connection cables of the hard drive
- The hard drive is defective

Question: What is the meaning of?
Answer:

Incdicates the channel is recording.

Camera view is blocked

Video is unavailable on the channel

Channel is capable of providing audio

Motion is detected on the channel

PTZ camera is currently rotating positions

Question: Why does DVR have problems with real-time images, such as bad image color or serious brightness distortion?
Answer:
- If PAL and NTSC are not correctly selected, the images will be in black and white and possibly a rolling screen.
- DVR is not compatible with monitor
- The video transmission distance (cable run) is too long
- Adjust the DVR color settings

Question: Why is there no audio sound when monitoring?
Answer:
- Check sound box or speaker functions. Also check possible short circuit.
- Audio source may be connected to the video channel. You can click to full-screen to check.
- The hardware of DVR is defective
- Cameras are not audio capable
- Speakers need to have an amplifier
- Channel being monitored is not connected to an audio camera
- Volume regulate is turned down

Question: Why is there no audio when playing back?
Answer:
- Check to see that the audio settings for the channels are correct.
- Audio is off in record menu

Question: Why is my system time not correct?
Answer:
- Wrong setting or user did not click “Edit” to confirm

Question: Why doesn’t motion detection work?
Answer:
- The setting of motion detection area is not correct
- Sensitivity is too low

Question: Why do I have a USB device error?
Answer:
- The data being downloaded exceeds the capacity of backup device
- The backup device is incompatible
- The backup device is damaged

Question: Why doesn’t the Remote Control work?
Answer:
- The remote control is too far from the DVR
- Remote control batteries are dead or low
- Remote control is damaged, check by using the control on the DVR

Question: Why can’t I log in over the Internet?
Answer:
- Check the network to see if it is connected. Check if LINK or 100M LED is displayed normally on the panel; use ping xxx.xxx.xxx.xxx (DVR IP) to check if the Internet is linked properly.
- Make sure you are running Windows 7, Vista or XP operating system and Internet Explorer 6.0 - 8.0
- ActiveX control has been blocked. Please manually install ActiveX control again.
- Install DX8.1 and upgrade your video card driver

Question: Why is there no picture or picture is not clear when I preview the recording or playback the recording via Internet Explorer?
Answer:
- Choose “WAN” in “web environment”
- Try opening and closing windows again by right clicking the mouse button

Question: Why am I receiving a message indicating “other members are setting.....” when accessing my DVR settings through Internet Explorer
Answer:

- Someone else is setting the DVR or the Main Menu is open on the DVR. Close the DVR configuration interface or exit the DVR.

Question: Why do I get a message stating “Not Enough Resources” when I have not exceeded the 480 frame rate total for NTSC recording?
Answer:
- Although the chipset is the standard NTSC 480, part of the resources are used for other internal functions and cannot be allocated to recording resources. A frame rate of 420 fps is the maximum that can be allocated.

TROUBLESHOOTING

ERROR	POSSIBLE CAUSE	SOLUTIONS
System is not receiving power or is not powering up	Cable from power adapter is loose or is unplugged	• Confirm that all cables are connected correctly • Confirm that the power adapter is securely connected to the back of the unit

	Cables are connected, but system is not receiving sufficient power	• Confirm that the system is powered on (LED indicators on the front should be ON)
		• If the unit is connected through a power bar or surge protector, try bypassing the bar and connecting the power directly to the wall outlet
		• Confirm that there is power at the outlet
		  • Connect the power cable to another outlet
		  • Test the outlet with another plugged device

Remote control not detected by the system	Battery in the remote control is drained or is missing	• Install two fresh AAA alkaline batteries in the remote control
Hard drive is not detected by the system	Hard drive cables are loose or not properly connected	• Remove the housing and check that hard drive cables are firmly connected
		• Open the housing and install a 3.5 SATA hard drive
Hard drive is full (10% remaining) and the unit is No longer recording	Overwrite is not enabled	• From the Main Menu, select HDD Manage>Overwrite>Click OK to Enable
Mouse not detected by system	Mouse cable is not connected or is not firmly connected to the system	• Firmly connect the mouse cable to the USB Mouse port (not the USB Data port) on the front panel.
	System needs to be reset	• Power off the system (Turn power switch off position on back of unit). Firmly connect a USB mouse to the USB Mouse port on the front panel of the system. Power on the system (Turn power switch to on position on back of unit).
There is no picture on selected channels/camera picture is not being displayed	Camera cables are loose or have become disconnected	• Check the camera video cable and connections • Disconnect and reconnect the cable at the system and at the camera • Try moving the camera to another channel or use another cable
The image on the DVR appears but does not have sound	Audio cables are loose or have been disconnected	• Check the AUDIO connections to the DVR
	Audio channels are disabled insert check the system settings	• Check the Configurations: Main Menu>Record>Audio
	Volume on external speakers (not included) is low or off	• Increase volume on external speakers (not included)
	Cameras are not audio capable or a powered microphone is not attached	• Add audio capable cameras or a powered microphone (not included with this kit)
The system beeps at startup	The beep at startup is normal	
I am not receiving e-mail notifications	E-mail notification is disabled	• Open Main Menu>Advance>Motion DETECT Then choose ON under SEND EMAIL
	Default setting is disabled and /or you have not entered your own SMTP information	• Open Main Menu>Advance>ALARM SET>MAIL, Then check settings

WARRANTY

PRODUCT LIMITED WARRANTY

BRK Brands, Inc., ("BRK") the maker of First Alert® brand products warrants that for a period of one year from the date of purchase (the "Warranty Period"), this product will be free from defects in material and workmanship. BRK, at its sole option, will repair or replace this product or any component of the product found to be defective during the Warranty Period. Replacement or repair will be made with a new or remanufactured product or component. If the product is no longer available, replacement may be made with a similar product of equal or greater value. This is your exclusive warranty.

This warranty is valid for the original retail purchaser only from the date of initial retail purchase and is not transferable. In order to obtain warranty service, you must keep the original sales receipt and proof of purchase in the form of the UPC code from the package. BRK dealers, service centers, or retail stores selling BRK products do not have the right to alter, modify or any way change the terms and conditions of this warranty.

WARRANTY EXCLUSIONS

Parts and Labor: 1 year limited (warranted parts do not include bulbs, LEDs, and batteries)

This warranty does not apply to bulbs, LEDs, and batteries supplied with or forming part of the product.

This warranty is invalidated if non- BRK accessories are or have been used in or in connection with the product or in any modification or repair is made to the product.

This warranty does not apply to defects or damages arising by use of the product in other than normal (including normal atmospheric, moisture and humidity) conditions or by installation or use of the product other than in strict accordance with the instructions contained in the product owner's manual.

This warranty does not apply to defects in or damages to the product caused by (i) negligent use of the product, (ii) misuse, abuse, neglect, alteration, repair or improper installation of the product, (iii) electrical short circuits or transients, (iv) usage not in accordance with product installation, (v) use of replacement parts not supplied by BRK, (vi) improper product maintenance, or (vii) accident, fire, flood or other Acts of God.

This warranty does not cover the performance or functionality of any computer software included in the package with the product. BRK makes no warranty that the software provided with the product will function without interruption or otherwise be free of anomalies, errors, or "Bugs." This warranty does not cover any costs relating to removal or replacement of any product or software installed on your computer.

BRK reserves the right to make changes in design or to make additions to or improvements in its products without incurring any obligations to modify any product which has already been manufactured. BRK will make every effort to provide updates and fixes to its software via its website. This warranty does not cover any alteration or damage to any other software that may be or may become resident on the users system as a result of installing the software provided. This warranty is in lieu of other warranties, expressed or implied, and BRK neither assumes nor authorizes any person to assume for it any other obligation or liability in connection with the sale or service of the product. In no event shall BRK be liable for any special or consequential damages arising from the use of the product or arising from the malfunctioning or non-functioning of the product, or for any delay in the performance of this warranty due to any cause beyond its control.

BRK does not make any claims or warranties of any kind whatsoever regarding the product's potential, ability, or effectiveness to prevent, minimize, or in any way affect personal or property damage or injury. BRK is not responsible for any personal damage, loss, or theft related to the product or to its use for any harm, whether physical or mental related thereto. Any and all claims or statements, whether written or verbal, by salespeople, retailers, dealers, or distributors to the contrary are not authorized by BRK, and do not affect this provision of this warranty.

BRK's responsibility under this, or any other warranty, implied or expressed, is limited to repair, replacement or refund, as set forth above. These remedies are the sole and exclusive remedies for any breach of warranty. BRK is not responsible for direct, special, incidental, or consequential damages resulting from any breach of warranty or under any other legal theory including but not limited to, loss profits, downtime, goodwill, damage to or replacement of equipment and property and any costs of recovering, reprogramming or reproducing any program or data stored in or used with a system containing the product accompanying software. BRK does not warrant the software will operate with any other software except that which is indicated. BRK cannot be responsible for characteristics of their party hardware or software which may effect the operation of the software included.

Except to the extent prohibited by applicable law, any implied warranty of merchantability or fitness for a particular purpose is limited in duration to the duration of the above Warranty Period. Some states, provinces, or jurisdictions do not allow the exclusion or limitation of incidental or consequential damages or limitations on how long an implied warranty lasts, so the above limitations or exclusion may not apply to you. This warranty gives you specific legal rights, and you may also have other rights that vary from state to state, or province to province, or jurisdiction to jurisdiction.

OBTAINING SERVICE

If service is required, do not return the product to your place of purchase. In order to obtain warranty service, contact the Consumer Affairs Division at 1-800-323-9005, 7:30 a.m. – 5:00 a.m. Central Standard Time, Monday through Friday. To assist us in serving you, please have the model number and date of purchase available when calling.

After contacting the Consumer Affairs Division and it is determined that the product should be returned for Warranty Service, please mail the product to: BRK Brands, Inc., 3901 Liberty Street Road, Aurora, IL 60504-8122.

First Alert®

©2012 BRK Brands, Inc.
a Jarden Corporation Company (NYSE:JAH)
3901 Liberty Street Road, Aurora, IL 60504-8122
Phone: 630-851-7330 Tech Services: 800-323-9005
www.brkelectronics.com
M08-0391-000